

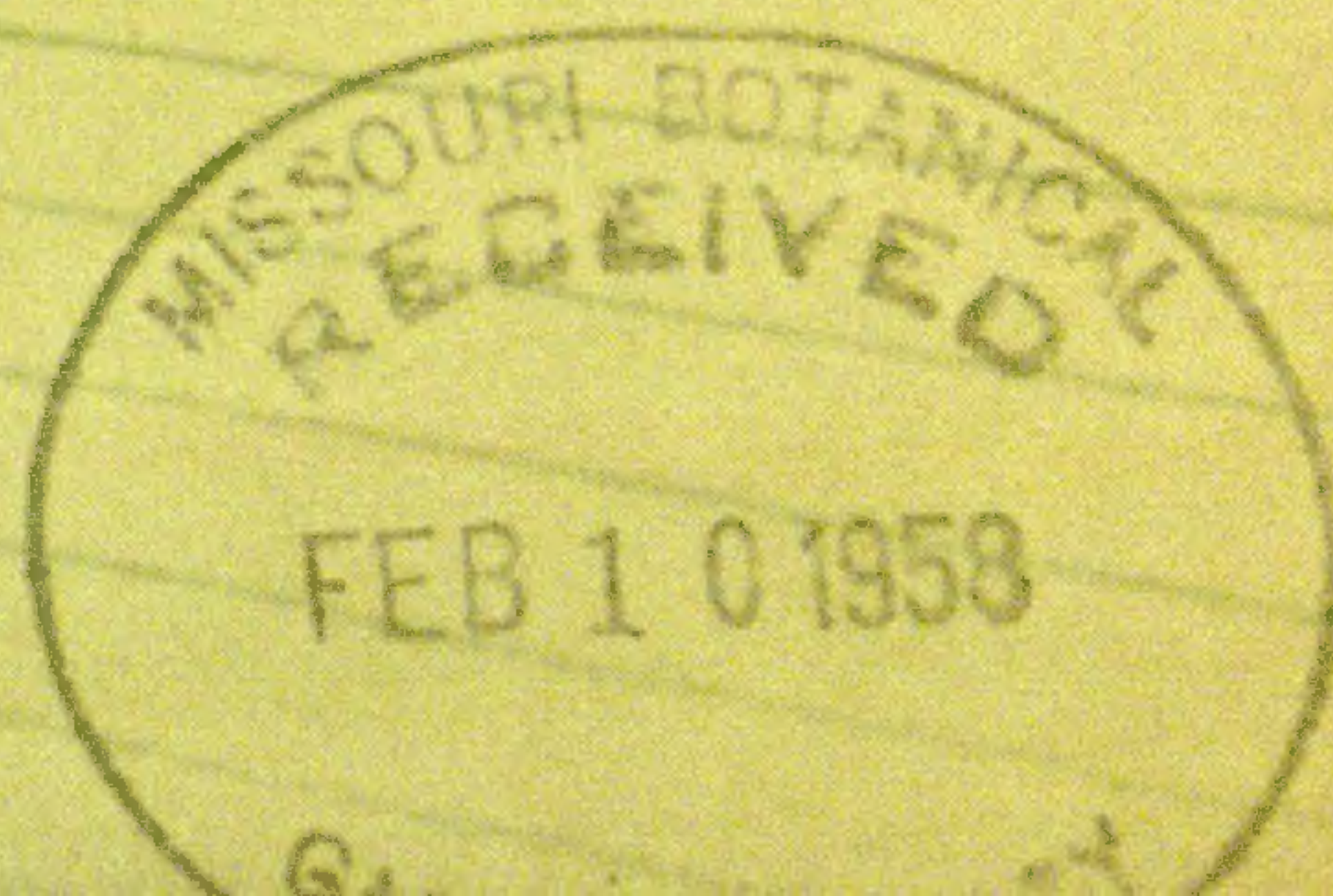
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OCT. 1957

COUNTY OF LOS ANGELES

*ANNUAL
REPORT
1956-57*





LOS ANGELES STATE and COUNTY ARBORETUM

301 No. Baldwin Avenue, Arcadia, California

WILLIAM S. STEWART
DIRECTOR

Cable: LASCA, Arcadia, Calif.

Telephone: Hillcrest 6-5247

GEORGE H. SPALDING
SUPERINTENDENT

July 2, 1957

Honorable Board of Supervisors,
County of Los Angeles,
501 Hall of Records,
Los Angeles 12, California.

Gentlemen:

On behalf of the staff I am pleased to present this report of our activities during the past fiscal year. Accomplishments of development of the grounds, the education program, and the research program are presented in this report.

With the dedication of the new Administration Building and Gatehouse, the Arboretum came of age in December 1956. These new facilities have allowed opening of the grounds to visitors on a seven day a week basis and have resulted in an extensive use of the Arboretum by the public. This is shown by an attendance of 79,000 during the first six months of 1957 which equals the attendance for the entire year of 1956.

Appreciation is expressed to the public spirited citizens who are Governors of this Department and who donate their time to its development and operation. Likewise gratitude is felt to the Trustees of California Arboretum Foundation, Inc. who have given generously of their time and money in initiating and sponsoring the Arboretum as a public institution.

Respectfully submitted,

William S. Stewart,
Director.

LOS ANGELES COUNTY

DEPARTMENT OF ARBORETA AND BOTANIC GARDENS

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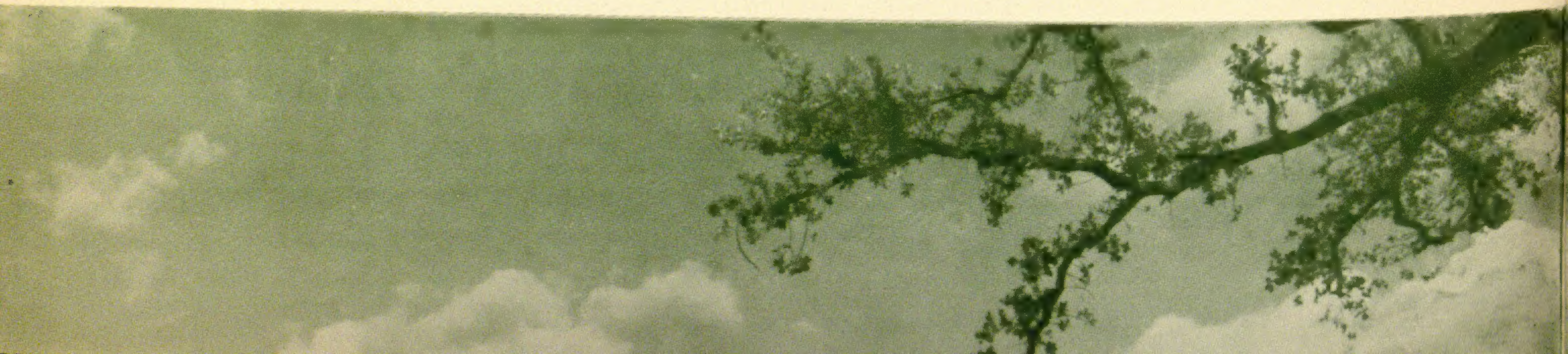
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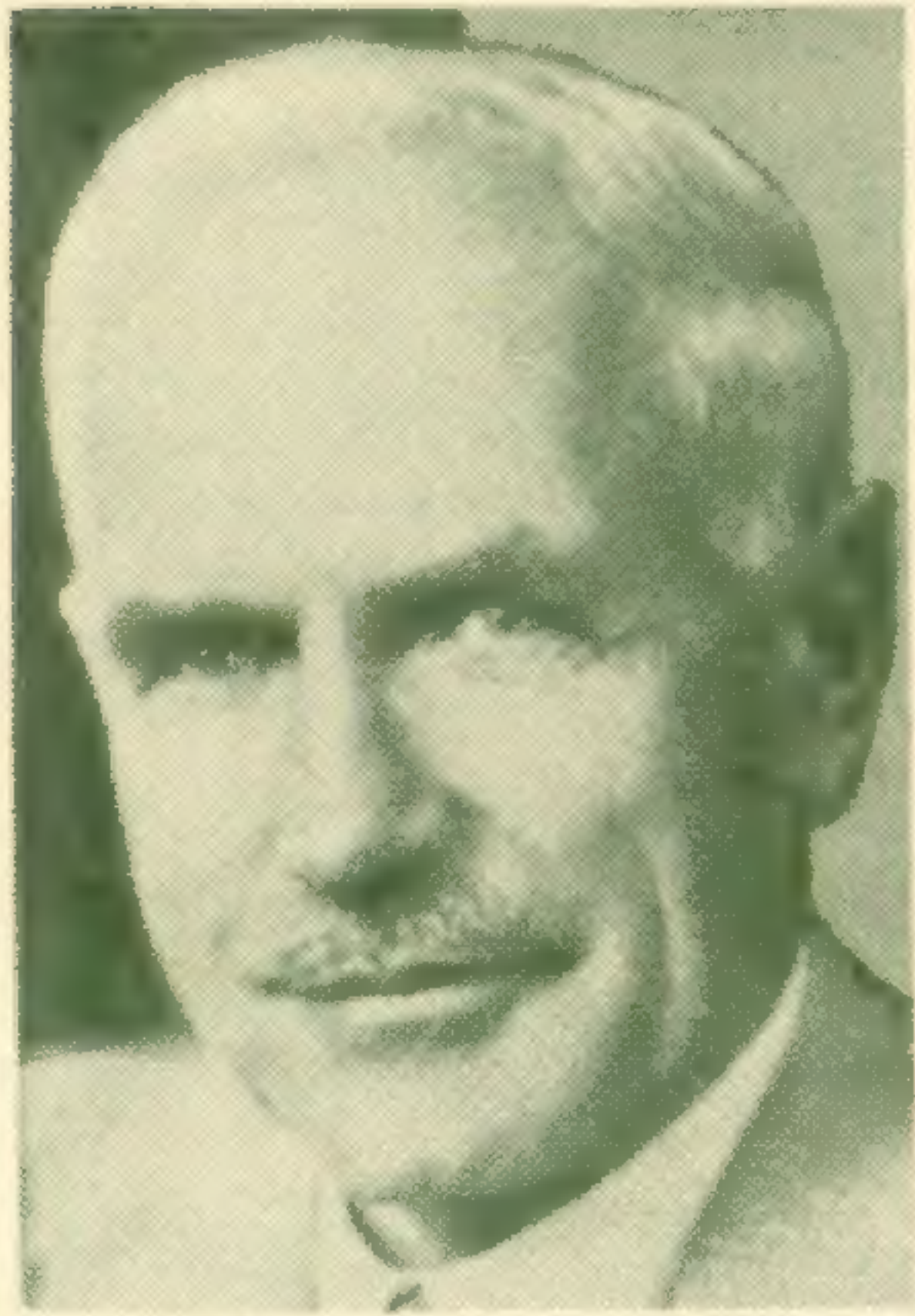




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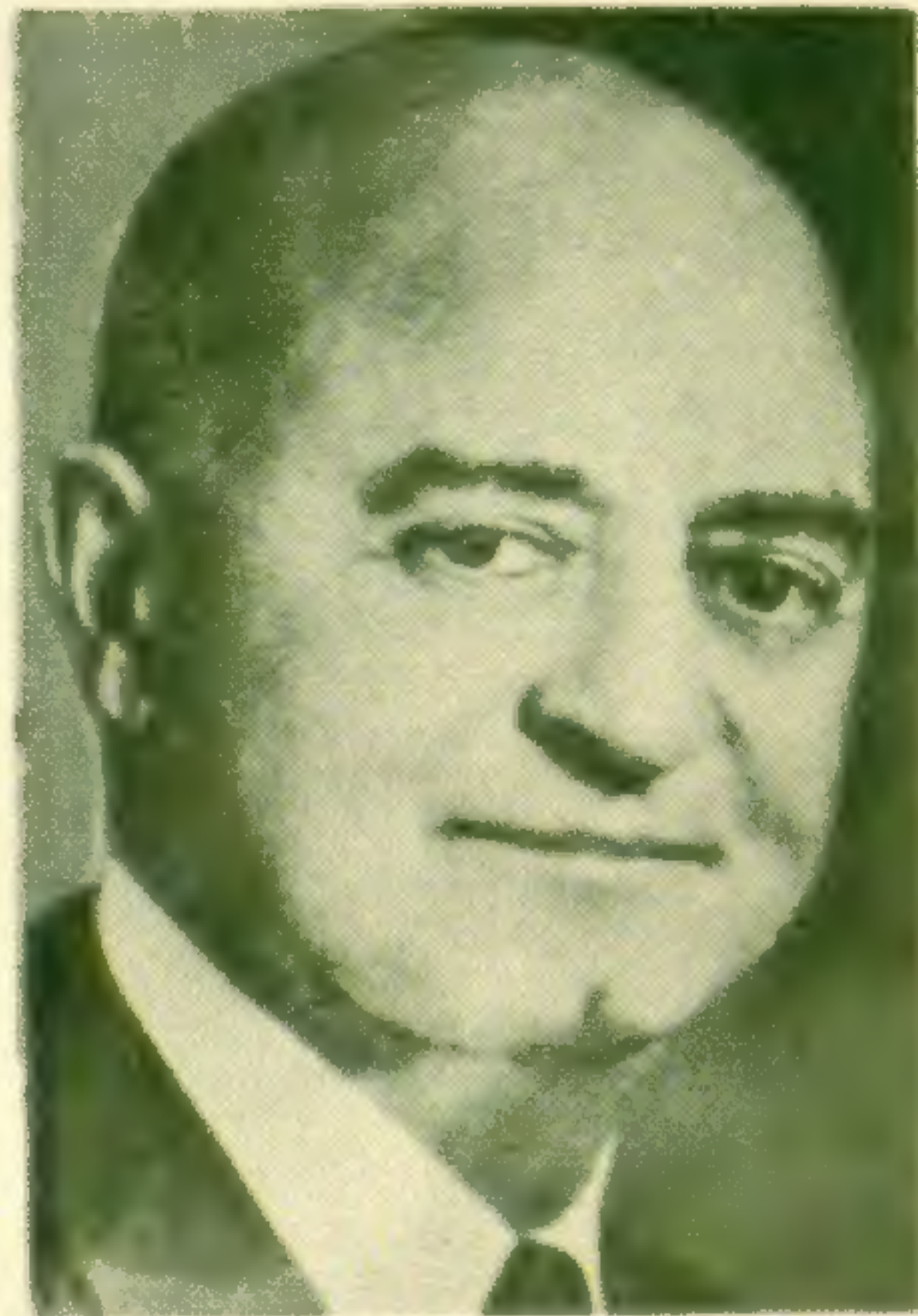
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CAPITAL IMPROVEMENTS

PROGRAM

MASTER OF CEREMONIES

Dr. F. W. Went, President, California Arboretum Foundation, Inc. Chairman, Board of Governors, Department of Arboreta and Botanic Gardens.

INVOCATION

Reverend Dr. J. Davis Barnard, Minister, Arcadia Presbyterian Church.

FLAG RAISING AND PLEDGE OF ALLEGIANCE

Boy Scout Troop 106, Hugo Reid Elementary School.

DEVELOPMENT OF THE LOS ANGELES STATE AND COUNTY ARBORETUM

Mr. Robert Casamajor, Trustee, California Arboretum Foundation, Inc.

INTRODUCTION OF GUESTS

Dr. F. W. Went.

REMARKS

Honorable Herbert C. Legg, Supervisor, First Supervisorial District

"WHY WE HAVE AN ARBORETUM"

Mr. Millard Sheets, Director, Los Angeles County Art Institute.

PRESENTATION OF BUILDING

Honorable John Anson Ford, Chairman, Los Angeles County Board of Supervisors and Chairman, Board of Supervisors' Committee for the Department of Arboreta and Botanic Gardens.

ACCEPTANCE OF BUILDING

Dr. W. S. Stewart, Director, Los Angeles State and County Arboretum.

"AMERICA THE BEAUTIFUL"

AUDIENCE

Oh, beautiful for spacious skies for amber waves of grain, for Purple mountain majesties above the fruited plain
America, America, God shed His grace on thee, and
Crown thy good with brotherhood from sea to shining sea.

Following the program there will be conducted jeep-train tours of the grounds and inspection of the new buildings.

"The musical presentations on this program are made possible through the sponsorship of the Los Angeles County Board of Supervisors and the Los Angeles County Music Commission".

THE MAJOR CAPITAL IMPROVEMENT DURING THE PAST YEAR WAS THE CONSTRUCTION AND OCCUPANCY OF THE NEW ADMINISTRATION BUILDING AND THE GATEHOUSE. THE MODERN AND INTERESTING DESIGN OF THESE BUILDINGS CONTRASTS SHARPLY WITH THE SIMPLE STRUCTURES OF THE HUGO REID ADOBE ON THE ARBORETUM GROUNDS. THE ADOBE REPRESENTS THE "HIDE AND TALLOW" DAYS OF EARLY CALIFORNIA.

THE NEW ADMINISTRATION AND GATEHOUSE BUILDINGS ALSO CONTRAST WITH THE GINGERBREAD OF THE "QUEEN ANNE COTTAGE", CONSTRUCTED BY "LUCKY" BALDWIN IN 1879, ALSO LOCATED ON THE ARBORETUM GROUNDS.

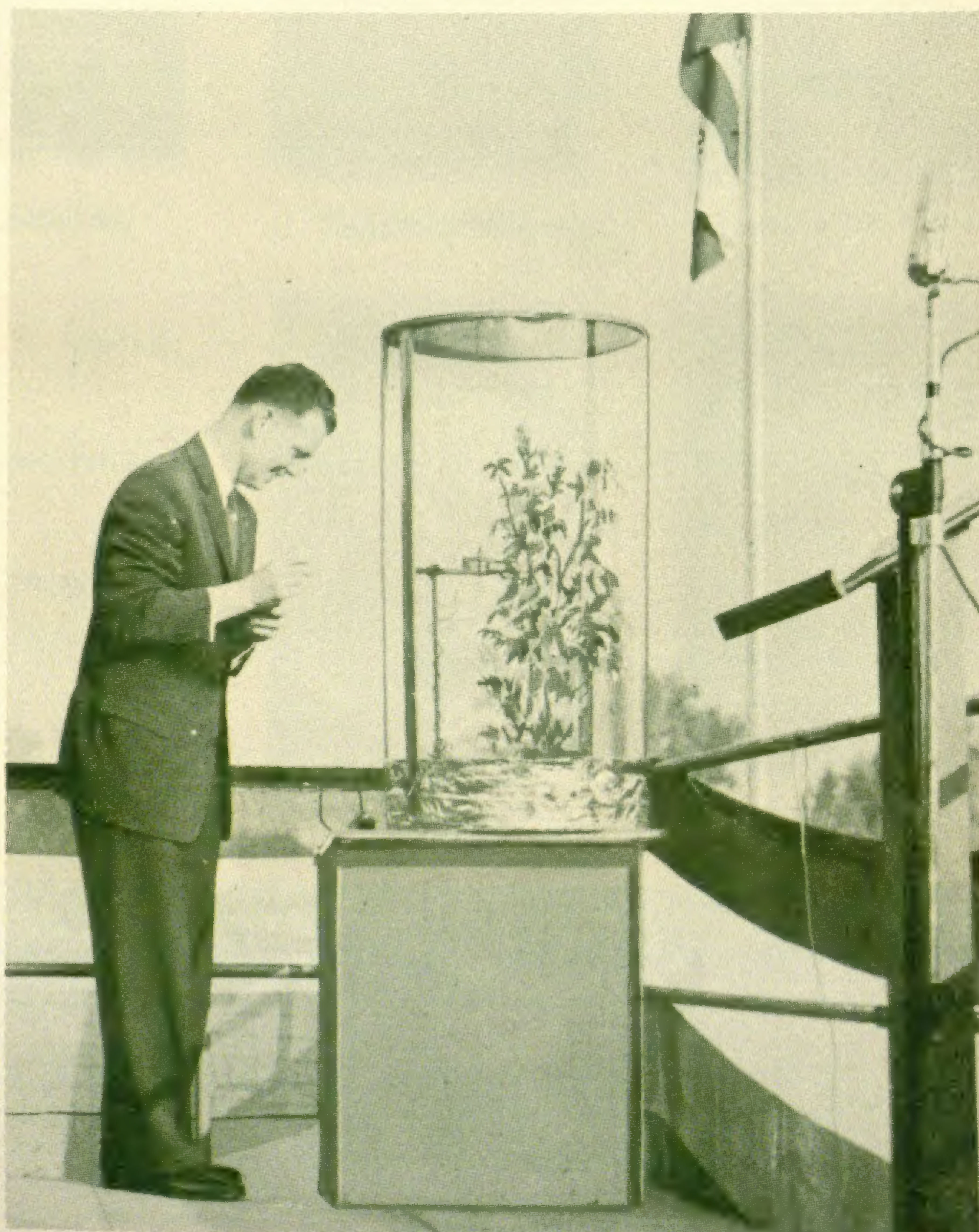
Dedication program for the Administration Building and Information Center at the Los Angeles State & County Arboretum, Dec. 14, 1956.

ANOTHER CAPITAL IMPROVEMENT AT THE ARBORETUM DURING THE PAST YEAR AS INSURANCE FOR THE FUTURE HAS BEEN THE INSTALLATION OF TWO DIAGONALLY OPPOSITE FIRE HYDRANTS AT THE HUGO REID ADOBE, THE "LUCKY" BALDWIN CARRIAGE HOUSE AND THE "QUEEN ANNE COTTAGE".

THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT AND THE ARMY ENGINEERS COMPLETED THE FLOOD CONTROL CHANNEL THROUGH THE ARBORETUM GROUNDS. ANOTHER BIT OF INSURANCE AGAINST HEAVY RAINS IN THE FUTURE.

Dr. Stewart, Director, signals the "sensitive plant", Mimosa pudica. In response to the signal, the leaves closed an electrical circuit which cut the ribbon. Thus the Administration Building was officially opened by a plant.

RECOGNITION OF THE OUTSTANDING DESIGN OF THE NEW STRUCTURES IS SHOWN BY THE FACT THAT THEY WERE SELECTED BY THE CONCRETE MASONRY ASSOCIATION AS THE BEST EXAMPLES OF CEMENT BLOCK STRUCTURES BUILT IN SOUTHERN CALIFORNIA DURING THE PAST YEAR.



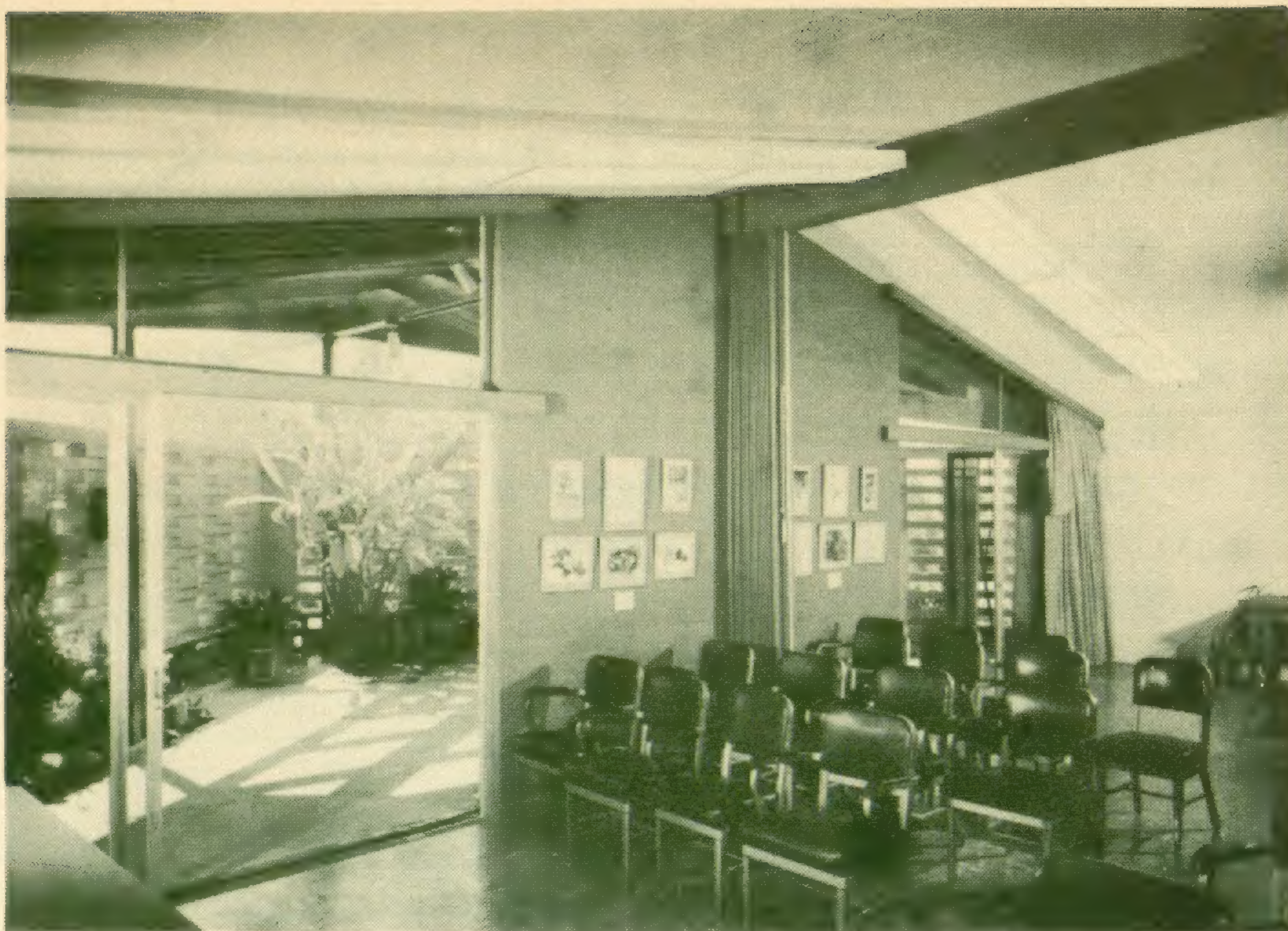


Stairway and entrance to the Administration Building.

The Entrance Pavilion. The glass cases provide display areas for horticultural and botanical subjects.

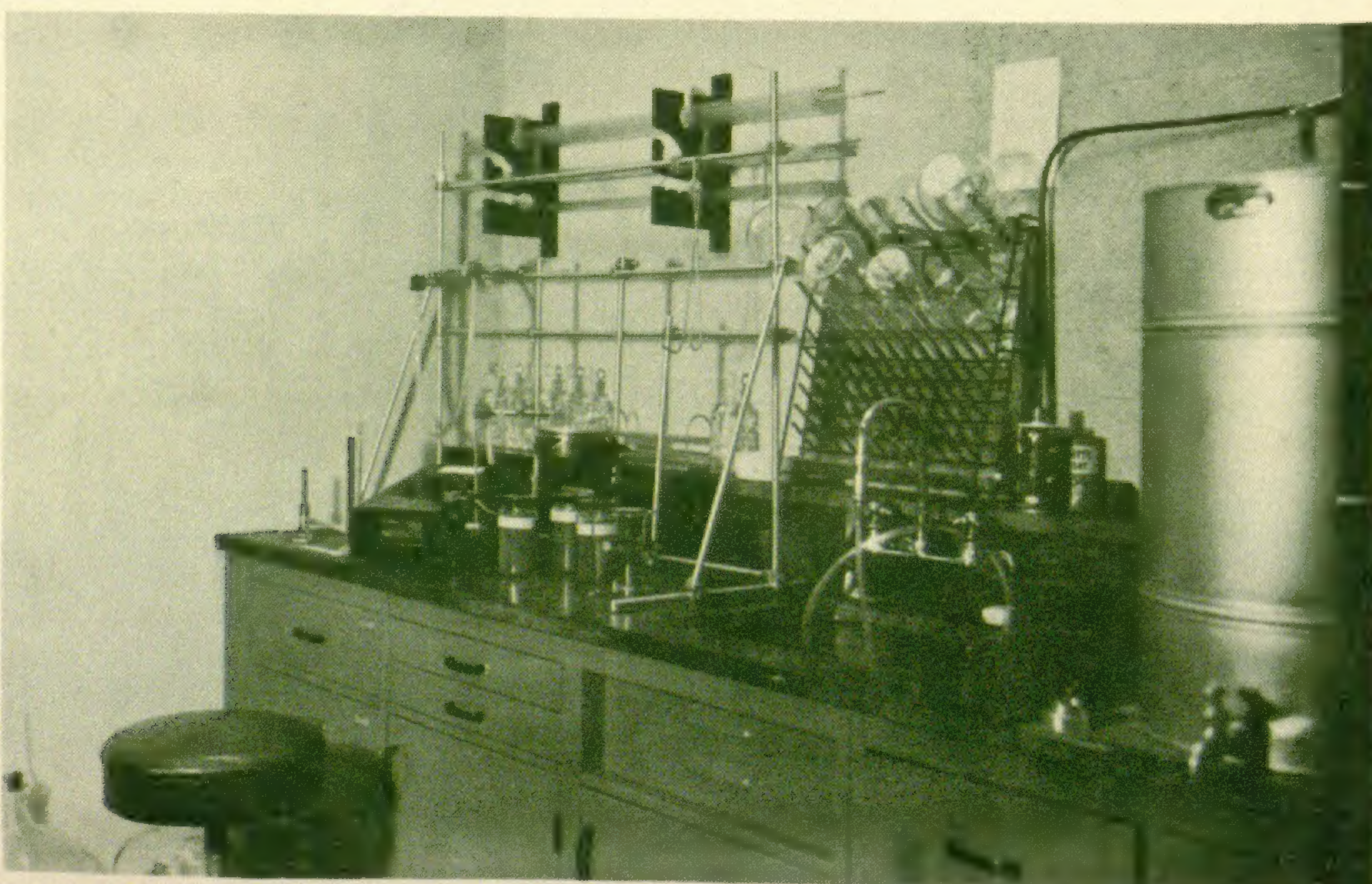


Lecture Room. Seating approximately sixty adults, classes, staff meetings, horticultural society and garden club activities are held here.



An enclosed patio at the east end of the building serves for informal meetings and an over-flow space for Lecture Room programs.

A well equipped, small laboratory furnishes facilities for experimental work.



RESTORATION

THE 1955-56 CALIFORNIA STATE LEGISLATURE APPROPRIATED \$102,040 TO RESTORE THE "LUCKY" BALDWIN CARRIAGE HOUSE AND THE HUGO REID ADOBE ON THE ARBORETUM GROUNDS. THIS ACTION WAS PROMPTED BY THE OUTSTANDING EXAMPLE OF RESTORATION OF "LUCKY" BALDWIN'S "QUEEN ANNE COTTAGE" WHICH HAD BEEN ACCOMPLISHED ENTIRELY BY PRIVATE FUNDS RAISED BY THE HISTORICAL COMMITTEE OF THE CALIFORNIA ARBORETUM FOUNDATION, INC.

DURING THE WINTER OF 1956 ARCHAEOLOGICAL INVESTIGATIONS WERE BEGUN AT THE HUGO REID ADOBE. THESE STUDIES ARE CONDUCTED BY DR. J. W. WALLACE, DEPARTMENT OF ANTHROPOLOGY, UNIVERSITY OF SOUTHERN CALIFORNIA AND HIS STUDENTS. WORKING IN COOPERATION WITH DR. WALLACE, THE ARCHAEOLOGICAL RESEARCH ASSOCIATES OF SOUTHERN CALIFORNIA HAVE CONTRIBUTED MANY HOURS OF HELP. AMONG THE ARCHAEOLOGICAL ASSOCIATES, MR. ROGER DESAUTELS AND MR. KRITZMAN DESERVE SPECIAL CREDIT FOR THEIR PART IN THIS PROJECT. IT IS IMPORTANT TO NOTE THAT THE ARCHAEOLOGISTS ARE DONATING THEIR TIME AND KNOWLEDGE TO THIS PROJECT AT NO COST TO EITHER THE STATE OR THE COUNTY. THIS SPLENDID CONTRIBUTION TO OUR KNOWLEDGE OF HISTORY IN SOUTHERN CALIFORNIA IN VIEW OF THE ARBORETUM IS DEEPLY APPRECIATED BY ALL CONCERNED.



Hugo Reid Adobe foundation under the former Baldwin Annex. Workers: Gary Coon trowels in Pit A8; Dr. Wallace shovels back dirt in Pit A6; Ken Dampf in Pit A5.



Archaeological students at work inside one of the rooms of the Hugo Reid Adobe.

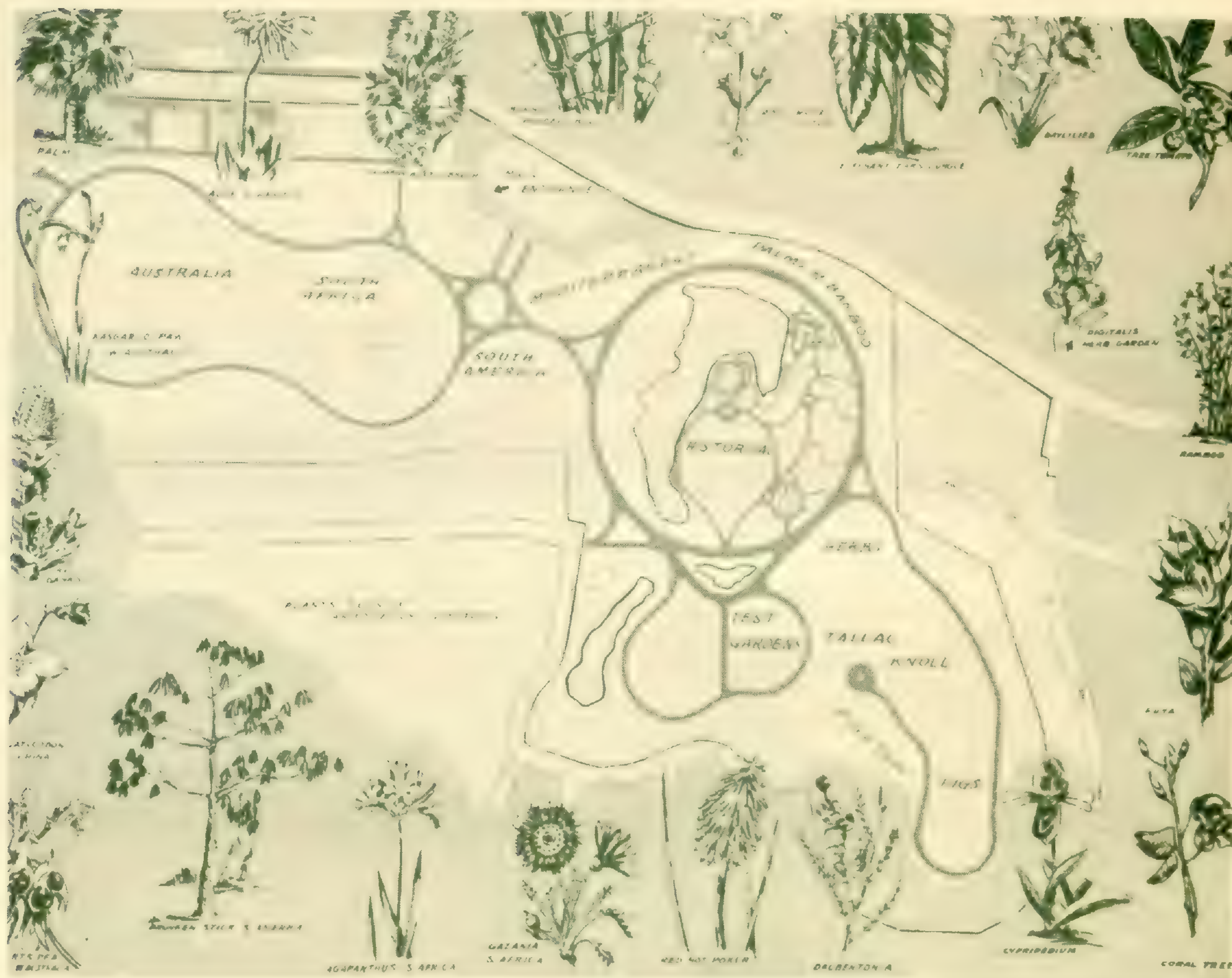


Upon completion of the restoration, this will be the most elegant carriage house in the country side. The walls and ceilings of the first floor are panelled in tongue-and-groove redwood and cedar.

HORTICULTURE

IT IS TO THE CREDIT OF THE CHIEF HORTICULTURIST AND HIS STAFF OF EXPERIENCED ARBORETUM GARDENERS, PARK MAINTENANCE MEN, EQUIPMENT OPERATORS AND PARK MAINTENANCE MEN HELPERS THAT THE VARIED AND SEPARATE PLANTINGS OF THE ARBORETUM BROUGHT MORE VISITORS TO THE ARBORETUM THIS YEAR THAN EVER BEFORE.

ONLY A BRIEF SUMMARY OF THE ACCOMPLISHMENTS OF THESE MEN CAN BE INCLUDED IN THIS REPORT. ONE MUST VISIT THE ARBORETUM TO APPRECIATE THE HORTICULTURAL BEAUTY AND VALUE CONTRIBUTED BY THESE PLANTSMEN TO THE SOUTHERN CALIFORNIA LANDSCAPE.



A thumb-nail map of the Horticultural Sections of the Arboretum. The border consists of sketches of plants of representatives within these sections.

AUSTRALIA

THIS SECTION IS NOT FOR THE IMPATIENT GARDENER. THE EMPHASIS IS PRIMARILY ON TREES, TREES UNIQUE BECAUSE THEY ARE BEING GROWN AS MUCH FOR THEIR CONSPICUOUS FLOWERS AS FOR THE SHAPE OF THEIR LEAF AND LIMB.

SOLITARY AND GROUPS OF EUCALYPTUS SPECIES ARE COMING OF AGE WITH EACH PASSING YEAR, FORMING A 'FOREST' OF SUCH TREES.



HIBISCUS HUGELII, ALSO CALLED THE "BLUE HIBISCUS" HAS CAUGHT THE FANCY OF THE NURSERY TRADE. THIS IS ALSO A NATIVE OF AUSTRALIA.

Eucalyptus

SOUTH AFRICA

SPRINGTIME IN SOUTH AFRICA DAZZLES THE VIEWER. THE ACRE OF COMPOSITES (SUNFLOWER FAMILY) FROM GROUND COVER HEIGHT TO SMALL TREES, RANGE IN COLOR FROM ORANGE TO YELLOW TO WHITE TO BLUE TO RED. NATIVE WILDFLOWERS IN AFRICA, THESE PLANTS WILL SOMEDAY BEAUTIFY HOMES HERE AS OUTSTANDING HORTICULTURAL GEMS.

NO LONGER MUST THIS SECTION BE RESTRICTED TO VIEWS FROM A DISTANCE. CONVENIENT PATHES NOW LEAD THE INTERESTED AMONG THE VARIOUS SPECIES FOR A CLOSE-UP LOOK.

THE LOS ANGELES CITY FLOWER - "BIRD OF PARADISE" - IS FOUND IN THIS SECTION, FOR IT TOO IS A NATIVE OF SOUTH AFRICA.

SOUTH AFRICAN SUCCULENTS — MESEMBRYANTHEMUMS, CRASSULAS, AND EUPHORBIAS CATCH THE EYE OF "LIMITED SPACE" GARDENERS AS THEY TOUR THE WESTERN EDGE OF THIS SECTION.

BALDWIN ESPLANADE

WITHOUT THE BENEFIT OF COLORED PICTURES, IT IS IMPOSSIBLE TO CREATE WITH WORDS THE FLORAL DISPLAY ALONG THIS ROADWAY. ICE-PLANTS (MESEMBRYANTHEMUMS) NOW FORM A FOUR BLOCK LONG CARPET BORDER FROM COLORADO BOULEVARD TO THE ARBORETUM ENTRANCE. RED, PINK, CREAM, YELLOW AND WHITE FLOWERS MAKE UP THIS 'PERSIAN CARPET'.

EACH YEAR, 'ACACIA CORNER' BECOMES MORE LOVELY AS THE TREES AND SHRUBS, BEARING THEIR YELLOW BLOOMS, MATURES. THINNING OUR INITIAL PLANTING HAS BROUGHT EMPHASIS TO BEAR ON THE FORM OF EACH OF THE MANY SPECIES WITHIN THIS COLLECTION.

DURING THE YEAR, AND FOLLOWING THE SPRINGTIME BURST OF COLOR, INDIVIDUALS OF PUYAS, DYCHIAS, CORAL TREES, CEANOOTHUS, CASSIAS, CRAPE MYRTLES AND AGAVES CARRY ON THE BEAUTIFICATION OF THE PARKWAY.

ADMINISTRATION BUILDING

OUR FRONT YARD IS GIVEN OVER TO A VARIED PLANT COLLECTION, REPRESENTING A NUMBER OF PLANT FORMS, TEXTURES, COLORS AND NATIVE COUNTRIES.



Dominating the scene to the left of the stairway is a clump of Phoenix reclinata or the Senegal date palm, a gift to the Arboretum. The sloping expanse to the right of the stair is covered with the herb, Rosemary.

SOUTH AMERICA

"MANANA" NO LONGER WAS HEARD IN ANY DISCUSSION CONCERNING THE DEVELOPMENT OF THIS SECTION. THE COMPLETION OF THE FLOOD CONTROL CHANNEL AND THE INSTALLATION OF THE SPRINKLER SYSTEM CHANGED THE WORK SCHEDULE TO "ADELANTEMOS".

ON A MESA-LIKE MOUND, A GARDEN OF CACTUS SPECIMENS, NATIVE TO OUR SOUTHERN NEIGHBORS, CATCHES THE EYE. ACROSS THE FLAT IN FRONT OF THIS MOUND, MORE NATIVES, TREES AND SHRUBS, NOW APPEAR ESTABLISHED. IN ALL, OVER 700 PLANTS WERE SET OUT IN THIS SECTION WHICH HAD TO BE NEGLECTED FOR SO MANY YEARS.

MEDITERRANEAN

THIS SECTION ALSO SUFFERED IN ITS DEVELOPMENT AND FOR THE SAME REASONS LISTED FOR THE SOUTH AMERICAN AREA. HOWEVER, BEFORE THE PLANTING SEASON ENDED, SEVERAL HUNDRED OLD WORLD PLANTS WERE SET OUT, GIVING THIS SECTION AN APPEARANCE OF BEING INHABITED AT LEAST.

PALM & BAMBOO

THIS YEAR, NO OTHER SECTION RECEIVED MORE ATTENTION THAN OUR GROWING COLLECTION OF PALMS AND BAMBOOS. IT IS RAPIDLY BECOMING THE MOST VARIED COLLECTION OF ITS KIND ON THE WEST COAST.

NURSERYMEN ATTRACTED BY THE ORNAMENTAL APPEAL OF THE MANY SPECIES INQUIRED ABOUT THE AVAILABILITY OF NURSERY STOCK AND CULTURE METHODS. THE PUBLIC WANTED TO KNOW WHERE THEY MIGHT OBTAIN PLANT MATERIAL. STUDENTS FOUND THESE TWO GROUPS A FASCINATING STUDY, BOTANICALLY.

TO SEE A PALM WITH MAROON LEAVES (LIVISTONA MARIAE) OR ONE WHOSE LEAVES HAVE A BLUISH CAST (ERYTHEA ARMATA) OR A YELLOW AND GREEN STRIPED CANE OF BAMBOO, DEBUNKS THE LAYMAN'S IDEA THAT ALL SUCH PLANTS COME ONLY IN GREEN!



Bambusa multiplex 'Alphonse Karr'.
A yellow cane, striped with green.

HERB GARDEN

A RUSTIC FENCE: BEGINNINGS OF A ROCK GARDEN: AN AISLE OF PURPLE LEAVED FLOWERING PLUMS: A DIPPING WELL: A SPLIT-LEVEL JEWEL BOWL BRAISER WATER FALL: AND SOME 900 PLANTS -- ALL THESE THINGS ARE NEW TO THE HERB GARDEN.

THE MEMBERS OF THE SOUTHERN CALIFORNIA UNIT OF THE HERB SOCIETY OF AMERICA CONTINUE TO SUPPORT THIS UNIQUE PLANT DISPLAY, FINANCIALLY AS WELL AS IN ITS DIRECTION OF DEVELOPMENT AND BY ASSISTING IN THE PLANTING AND CARE OF THE SPECIMENS. THEY ARE NOT FINISHED WITH THEIR PLANS EITHER, WATCH FOR NEXT YEAR'S REPORT.



This young visitor poses beside the jewel bowl waterfall, a recent addition to the Herb Garden.

TEST & DISPLAY GARDEN

ADJACENT TO THE HERB GARDEN, ONE STEPS FROM AN OLD WORLD FORMAL GARDEN INTO A MODERN DISPLAY ARRANGEMENT OF THE 'NEW' IN BOTH ANNUALS AND PERENNIALS. LATE SUMMER THROUGH MAY, THE ANNUAL FLOWER BEDS CONTRIBUTED BRIGHT COLOR TO THE VISITOR'S TOUR. MORE THAN 20,000 PLANTS WERE REQUIRED FOR THIS SPLASH OF COLOR. PLANTINGS INCLUDING AMARYLLIS, DAY LILIES, IRIS, 'MUMS', GERANIUMS AND PELARGONIUMS ARE PERMANENT AND APPEAR IN SEMI-CIRCULAR BEDS.

TALLAC KNOLL

A DIVERSE PLANTING AREA BEST DESCRIBES THIS SECTION.

AT ITS SUMMIT, IS THE 'GARDEN OF EDEN'. FORMERLY AN EARTH RESERVOIR, NOW PLANTED TO TROPICAL VEGETATION. CYMBIDIUM ORCHIDS, COFFEE TREES, AND PHYLLODENDRONS CREATE A LUSH, INVITING SHADY GARDEN.

THE BROMELLIAD SOCIETY MATERIALLY AIDED THIS GARDEN WITH A COLLECTION OF COLORFUL EXOTIC PLANTS.

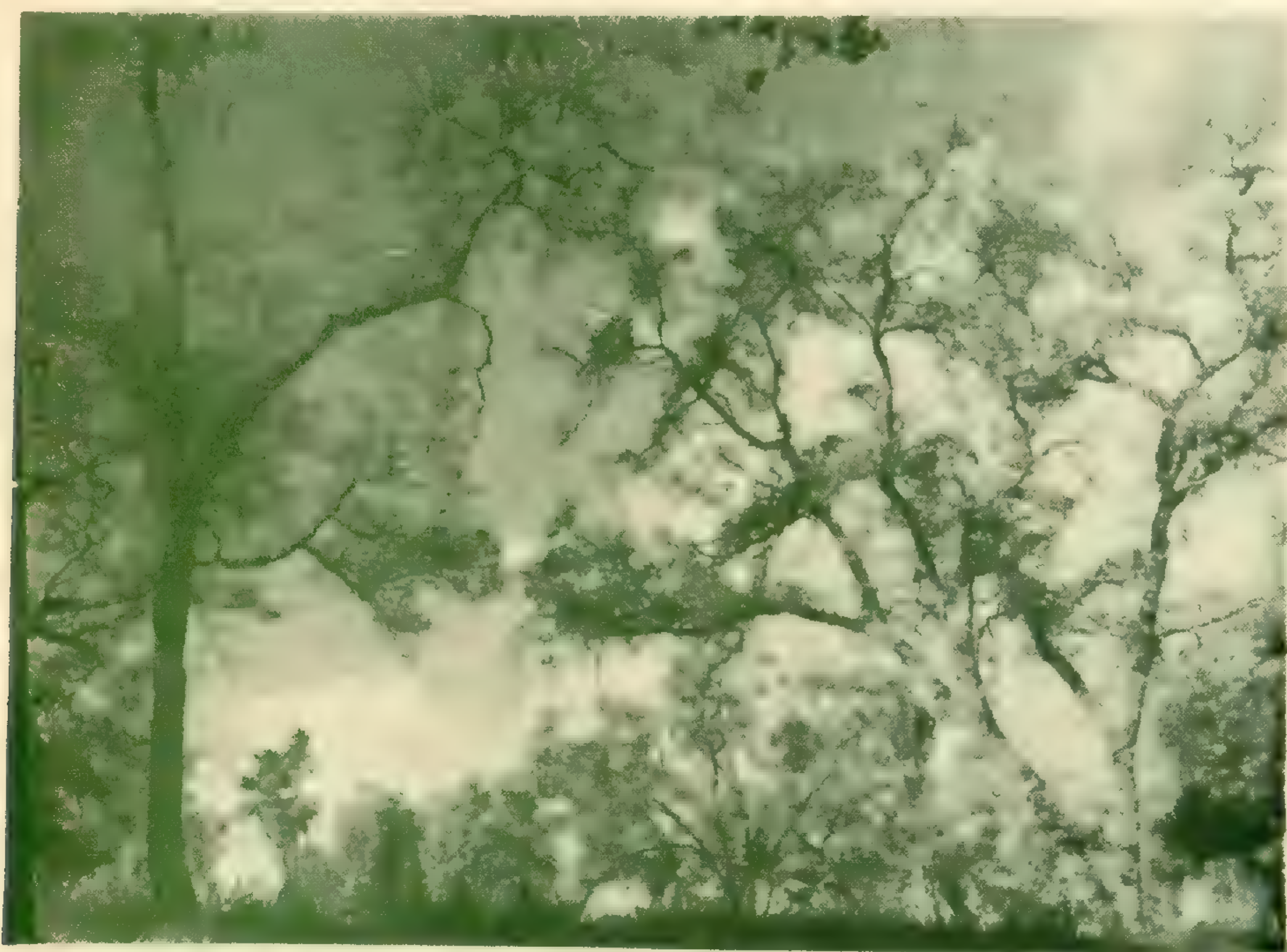
ANOTHER SPECIALIST HAS GIVEN US THE BEST IN HER COLLECTION OF BEGONIAS.



A Halaconia in the 'Garden of Eden'

FOUR ADDITIONAL PLANTINGS ARE NOW QUITE EVIDENT AROUND THE SHOULDERS OF THIS HILL. 1) A COLLECTION OF AVOCADO SPECIES, 2) AN ORNAMENTAL FIG COLLECTION, 3) A PINETUM (COLLECTION OF CONIFERS), AND 4) THE BEGINNINGS OF AN ECONOMIC STONE FRUIT ORCHARD.

IT IS ON TALLAC KNOLL THAT OUR NATIVE STAND OF ENGLEMANN AND COAST LIVE OAKS MAY BE FOUND. THE COMBINATION OF TWO WELL TIMED SPRAYINGS AND EFFICIENT TREE CARE BY OUR ARBORIST AND HIS CREW, BROUGHT OUT THE MAJESTIC BEAUTY OF THESE FINE OLD TREES.



LUX ARBORETUM

DURING THE PAST YEAR, THE LUX ARBORETUM PROPERTY HAS BEEN MAINTAINED BY AN ARBORETUM GARDENER AND ONE HELPER. THESE TWO MEN HAVE DONE AN OUTSTANDING JOB OF CLEARING PATHS, PRUNING PLANTS, WATERING AND MAINTAINING THE PROPERTY. THE TRANSFORMATION OF THE GROUNDS FROM THE PREVIOUS YEAR WHEN IT WAS COMPLETELY NEGLECTED HAVE BEEN REMARKABLE. IT IS HOPED THAT DURING THE YEAR 1957-58 PROBATE OF THIS PROPERTY WILL BE CLOSED AND WORK CAN MOVE AHEAD TOWARD A MASTER PLAN FOR DEVELOPING THIS AREA.

ANTELOPE VALLEY TEST STATION

AT THE REQUEST OF THE PALMDALE CHAMBER OF COMMERCE AND THE PALMDALE GARDEN CLUB, DURING THE FALL AND WINTER OF 1956, SURVEYS WERE MADE FOR POSSIBLE SITES FOR AN ARBORETUM TEST STATION IN THE ANTELOPE VALLEY. THE SITE FINALLY SELECTED WAS A THREE AND ONE-HALF ACRE TRACT OF LAND ON PROPERTY OWNED BY THE LOS ANGELES COUNTY SANITATION DISTRICT NORTHEAST OF PALMDALE. DISCUSSION WITH THE SANITATION DISTRICT LED TO ESTABLISHMENT OF A LEASE TO THE ARBORETUM FOR THIS PROPERTY FOR ITS USE AS A TEST STATION.

IN THE SPRING OF 1956, ONE ACRE OF THE AREA WAS FENCED TO EXCLUDE RABBITS AND WATER PIPE WAS INSTALLED TO ALLOW IRRIGATION OF PLANTS. PLANTING WAS BEGUN IMMEDIATELY. SINCE THAT TIME, OVER 500 PLANTS GROWN AT ARCADIA HAVE BEEN PLANTED. THEY REPRESENT OVER 100 DIFFERENT KIND OF PLANTS NOT NOW GROWING IN THE ANTELOPE VALLEY. THEIR GROWTH AT THE TEST STATION WILL BE FOLLOWED WITH GREAT INTEREST BY ALL OF THE COMMUNITIES OF THE ANTELOPE VALLEY.

AT THE TIME OF INSTALLATION OF THE FENCING, RESIDENTS OF PALMDALE LEARNED OF THE OPERATION AND ORGANIZED AN IMPROMPTU GROUND BREAKING CEREMONY. THE PRINCIPAL OF THE PALMDALE HIGH SCHOOL, THE PALMDALE GARDEN CLUB, AND THE CHAMBER OF COMMERCE ALL MADE BRIEF COMMENTS TO THE GATHERING WHO HAD COME OUT TO THE TEST STATION IN A CARAVAN OF OVER 100 CARS. THE INTEREST AND ENTHUSIASM OF THE PALMDALE GARDEN CLUB IN THIS PROJECT IS OUTSTANDING. THEY VISIT THE TEST STATION REGULARLY AND FOLLOW THE GROWTH OF THE NEW INTRODUCTIONS WITH INTEREST. THEY HAVE ASSUMED FULL RESPONSIBILITY FOR SUPPLYING ONE OF THE TWO NECESSARY WEEKLY IRRIGATIONS AT THIS TEST SITE.



Mrs. Charles Thomas of Palmdale Garden Club, (center)
Dr. F. H. Bourne (right) and Mr. Don Woolley inspect
a Hawaiian mahogany tree in the test station plantings.

DISTRIBUTION OF PLANTS

DURING THE 1956-57 CALIFORNIA STATE LEGISLATURE, ASSEMBLY BILL #430 WAS INTRODUCED BY ASSEMBLYMEN ERNEST R. GEDDES. THIS BILL AUTHORIZES THE ARBORETUM TO DISTRIBUTE NEW PLANTS TO COMMERCIAL NURSERYMEN AT COST. THIS IS THE FINAL STEP IN THE SUCCESSFUL INTRODUCTION OF NEW PLANTS, TREES AND SHRUBS, FOR SOUTHERN CALIFORNIA. THE COMMERCIAL NURSERYMEN IN TURN MAY THEN PROPAGATE THE PLANT MATERIAL AND DISTRIBUTE IT TO THEIR CUSTOMERS.

A COPY OF THIS BILL FOLLOWS:

"THE BOARD OF SUPERVISORS MAY SELL AT A PRICE NOT LESS THAN THE COUNTY'S ESTIMATED COST, SURPLUS PLANTS, SHRUBS, FLOWERS, TREES, AND VEGETATION, AND THEIR SEEDS OR PRODUCTS, PRODUCED AT THE COUNTY ARBORETUM. THE BOARD MAY ALSO EXCHANGE SUCH MATERIALS FOR OTHER MATERIALS OF APPROXIMATELY THE SAME VALUE WITH ANY PERSON, ENTITY, POLITICAL ENTITY, OR NATION, OR MAY DISTRIBUTE SUCH MATERIALS WITHOUT CHARGE TO ANY PERSON, ENTITY OR POLITICAL ENTITY IN THIS STATE FOR THE PURPOSE OF TESTING SUCH MATERIALS UNDER CONDITIONS NOT OBTAINABLE AT THE COUNTY ARBORETUM, IF IN THE DISCRETION OF THE BOARD OF SUPERVISORS SUCH EXCHANGE OR TESTING WILL BENEFIT THE ARBORETUM OR FACILITATE THE ACCOMPLISHMENT OF THE PURPOSES SPECIFIED IN SECTION 25920. NO SUCH PLANT, SHRUB, FLOWER, TREE, SEED OR THEIR PRODUCT MAY BE SOLD IF SUCH PLANT, SHRUB, FLOWER, TREE, SEED OR THEIR PRODUCT IS AVAILABLE COMMERCIALY WITHIN THE STATE OF CALIFORNIA".

PROPAGATION

NEARLY ALL THE PLANTS GOING TO THE FIELD LOCATIONS HAVE THEIR BEGINNING IN THE HANDS OF THE ARBORETUM PROPAGATOR. AS AN AID TO HIS WORK, A SECOND 35' X 100' GLASSHOUSE WITH AN ATTACHED HEADHOUSE FACILITY CAME UNDER CONSTRUCTION THIS YEAR. IN ADDITION, TWO SMALL ORCHID GROWING HOUSES WERE COMPLETED. THE MONEY FOR THE LATTER TWO HOUSES WAS DONATED BY PRIVATE INDIVIDUALS.

PREVIOUSLY REPORTED WAS THE CONSTRUCTION OF A MIST PROPAGATION BENCH, USED FOR THE ROOTING OF CUTTINGS. THIS YEAR, THIS BENCH WAS ENLARGED TO ACCOMMODATE THE INCREASED DEMAND FOR PLANTING MATERIAL IN THE VARIOUS SECTIONS OF THE ARBORETUM.

A LARGE STEAM STERILIZER FOR SOIL HAS BEEN INCORPORATED INTO THE PROPAGATION PROCEDURES. CONTROL OF PATHOGENIC ORGANISMS, DETREMENTAL TO EARLY PLANT GROWTH, NOW CAN BE MORE CERTAIN.

TO HELP MAINTAIN PROPER TEMPERATURE AND HUMIDITY WITHIN THE GLASSHOUSE, A "HIGH" FOG WATER SPRAY WAS INSTALLED. THIS IS AN AUTOMATIC DEVICE, ACTIVATED THROUGH THERMOSTATIC CONTROL.

LIQUID NUTRIENTS CAN BE WHEELED TO THE BENCH-SIDE OF ALL PLANTS USING A NEW, LARGE MOBILE FERTILIZER DISPENSER.

THE USE OF PLASTIC FILMS, EITHER IN SHEET OR BAG FORM, IS FINDING MORE AND MORE APPLICATION IN MODERN PLANT PROPAGATION. HERE IT HAS BEEN USED WITH REMARKABLE SUCCESS IN THE GERMINATION OF FERN SPORES.



The beginnings of our second glasshouse. Office facilities will be located in the concrete block headhouse at the far end.

PLANT RECORDS

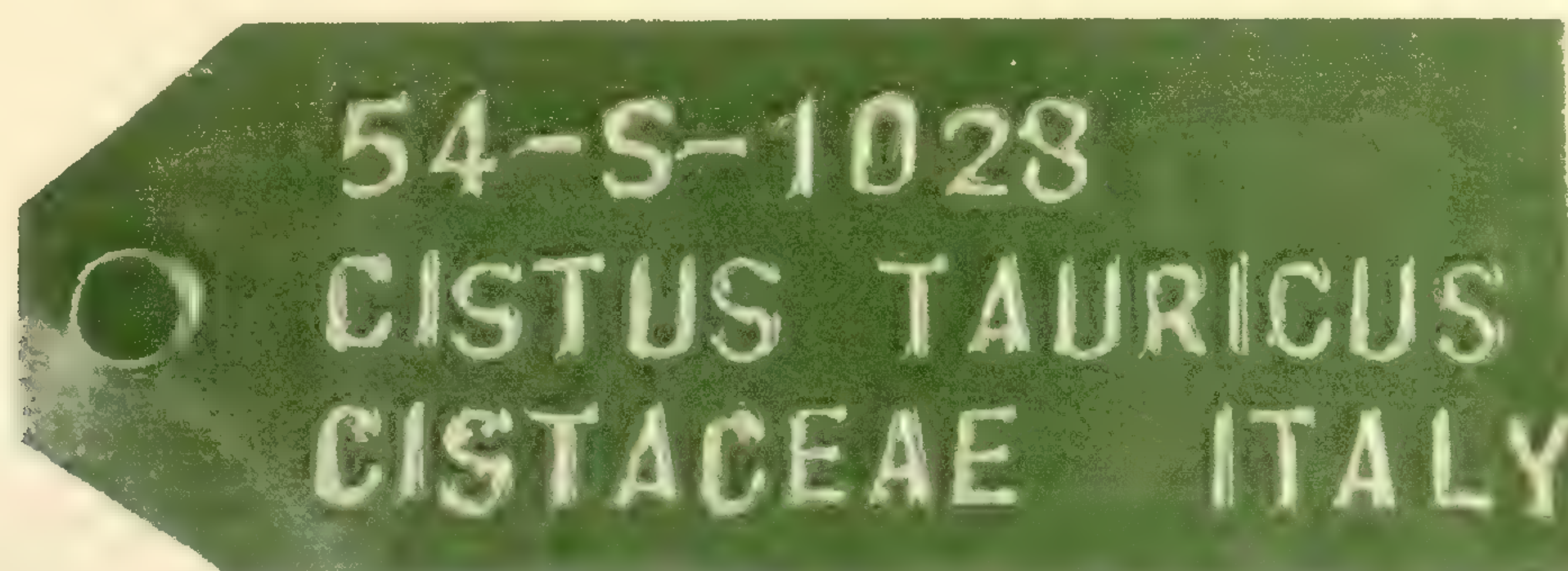
IT IS THE RESPONSIBILITY OF THE PLANT RECORDER TO KEEP ACCURATE RECORDS OF ALL PLANT MATERIAL ENTERING OR LEAVING THE ARBORETUM. HIS RECORDS INCLUDE THE LIFE HISTORY OF EACH PLANT, FROM SEED TO MATURE SPECIMEN. THESE RECORDS FURNISH INFORMATION TO THE PUBLIC CONCERNING THE PROPAGATION AND CULTURE OF THE PLANTS SEEN GROWING AT THE ARBORETUM. THE FITNESS OF THE THOUSANDS OF NEWLY INTRODUCED SPECIMENS TO GROW AND SURVIVE IN SOUTHERN CALIFORNIA CAN READILY BE ASCERTAINED FROM RECORDS SUCH AS THESE.

THIS SERVICE IN ITSELF IS OF MAJOR IMPORTANCE NOT ONLY TO THE ARBORETUM, BUT TO THE HORTICULTURIST AND PLANT SCIENTISTS WHO ARE ENDEAVORING TO IMPROVE THE BEAUTY AND PRACTICAL ASPECT OF THE PLANT LIFE IN THIS AREA.

SEED AND PLANT CONTROL FOR 1956-57

ACCESSIONS	2151
SEED PLANTED	896 packages
CUTTINGS INSERTED	4621
PERMANENT	9039

AN ALUMINUM LABEL SIMILAR TO THE ONE BELOW IDENTIFIES EACH PLANT IN THE FIELD. FOR DETAILED INFORMATION ABOUT THE PLANT, ONE NEED ONLY INQUIRE WITH THE NUMBER AND FIGURE STAMPED IN THE UPPER LEFT HAND CORNER OF THE LABEL. SUCH LABELS ARE PREPARED BY THE OFFICE OF THE PLANT RECORDER.



ARBORETUM NURSERY

THIS SECTION, COMPRISED OF THE LATHHOUSE AND ADJOINING NURSERIES, IS LOCATED IN THE NORTHEAST CORNER OF THE ARBORETUM.

THIS YEAR'S WORK HAS EMPHASIZED THE IMPROVEMENT OF PLANT QUALITY THROUGH IMPROVED CULTURAL METHODS.

INCREASING THE USE OF ONE GALLON SIZE CONTAINERS FOR NURSERY STOCK, NECESSITATES MOVING THE PLANTS TO THE FIELD BEFORE THEY BECOME TOO LARGE OR THEIR ROOTS BECOME CAN-BOUND.

PLANTING-OUT WAS MORE CLOSELY COORDINATED WITH THE BEST TIME FOR PLANTING, BASED ON THE WEATHER, SOIL AND PLANT CONDITION.

A HIGH DEGREE OF CONTROL WAS OBTAINED IN WEED ABATEMENT IN THE NURSERY AREA BY USING MECHANICAL AND CHEMICAL METHODS.

WITH ADDITIONAL HELP AVAILABLE, IT WAS POSSIBLE TO GIVE CLOSER ATTENTION TO WATERING, FERTILIZATION AND SANITATION SCHEDULES.

AND LASTLY, WINTER FROST PROTECTION WITHIN THE LATHHOUSE WAS AIDED THROUGH THE USE OF THE UNIVERSITY OF CALIFORNIA DEVELOPED RETURN-STACK ORCHARD HEATERS.

THE WORK OF THE NURSERY, THE CONSTRUCTION OF THE LATHHOUSE AND THE VARIETY OF PLANT MATERIAL BEING GROWN, BROUGHT MANY INTERESTED VISITORS TO THIS AREA SEEKING ANSWERS TO THEIR INDIVIDUAL HORTICULTURAL PROBLEMS.

THE WEATHERMAN

WEATHER STATION #1032 F

LOWEST TEMPERATURE	31 DEG. F. JAN. 28, 1957
HIGHEST TEMPERATURE	107 DEG. F. SEPT. 9, 1956 JUNE 18, 1957
TOTAL RAINFALL	16.39 INCHES
HIGHEST MONTHLY TOTAL RAIN	5.56 "
HIGHEST DAILY TOTAL RAIN	2.76 "
TOTAL EVAPORATION	53.14 "

DEMONSTRATION HOME GARDENS

TO DEMONSTRATE TO HOME OWNERS HOW TO USE THE NEW ORNAMENTAL TREES AND SHRUBS INTRODUCED INTO SOUTHERN CALIFORNIA THROUGH THE ARBORETUM RESEARCH PROGRAM, FOUR HOME DEMONSTRATION GARDENS ARE BEING DEVELOPED. PLANS FOR THESE GARDENS WERE OBTAINED THROUGH A LANDSCAPE CONTEST OPENED TO ALL REGISTERED LANDSCAPE ARCHITECTS IN SOUTHERN CALIFORNIA.

THE ARCHITECTS OF THE WINNING DESIGNS WERE THEN RETAINED TO DEVELOP AN OVERALL MASTER PLAN FOR THE FOUR GARDENS AS WELL AS TO MAKE PLANS FOR THE MASONRY AND WOOD STRUCTURES AND PLANTING LISTS.

THROUGH THE CALIFORNIA ARBORETUM FOUNDATION, SUNSET MAGAZINE HAS SUPPLIED BOTH THE AWARD MONEY FOR THE WINNING DESIGNS AND THE RETAINER FEES FOR THE SELECTED LANDSCAPE DESIGNERS. IN ADDITION, SUNSET MAGAZINE HAS CONTRIBUTED FREELY OF THE TIME OF ITS STAFF OF GARDEN SPECIALISTS IN PLANNING THESE GARDENS.

THE FOUR GARDENS ARE BEING PLANNED TO REPRESENT HOME OWNERS OF FOUR CONTRASTING TYPES OF GARDENS.

THE FIRST GARDEN IS DESIGNED FOR THE HOME OWNER WHO HAS A SMALL BOAT ON A TRAILER PARKED IN THE GARAGE. ON WEEKENDS, HE LEAVES THE GARDEN FOR THE SEASHORE OR MOUNTAIN LAKES. HIS YARD IS PLANNED TO BE ONE OF LOW MAINTENANCE. PLANTS GROWN HERE WILL REQUIRE THE MINIMUM OF ATTENTION AND WATERING. IT WILL NOT BE NECESSARY FOR THIS FAMILY TO STAY HOME WEEKENDS TO WATER THE YARD.

IN CONTRAST, THE SECOND GARDEN IS PLANNED FOR A RETIRED COUPLE WHO ARE INTERESTED IN MAINTAINING A GARDEN OF UNUSUAL PLANTS. THEY HAVE THE TIME TO SPEND IN GIVING SUCH PLANTS ALL OF THE ATTENTION THEY NEED. THIS GARDEN WILL BE RECOGNIZED AS THE PLANT COLLECTORS GARDEN.



Site of the Home Demonstration Gardens north of the Administration Building. Various treatments of concrete slab surfaces are visible in the foreground.

THE THIRD GARDEN IS DESIGNED AS THE HOME OF A RISING YOUNG EXECUTIVE. IT IS VISUALIZED HE MAY BE ABOUT 42 YEARS OLD. HE USES HIS GARDEN TO ENTERTAIN CLIENTS AND TRANSACT BUSINESS. HIS GARDEN WILL BE RECOGNIZED AS THE ENTERTAINERS GARDEN.

THE FOURTH GARDEN IN THIS SERIES WILL BE FOR THE MAN AND WIFE WHO HAVE FOUR CHILDREN RANGING IN AGE FROM TWO TO NINE AND WHO HAVE A DOG. THE DOG BURIES BONES IN THE FLOWER BEDS AND TAKES AFTERNOON SNOOZES IN THE FERNS. THE CHILDREN CLIMB THE TREES, RIDE TRICYCLES OFF OF THE PATHS AND FREQUENTLY BREAK OFF A CHOICE FLOWER IN THEIR ECSTASY OF A GAME OF HIDE AND SEEK. THIS GARDEN IS DESIGNED TO BE VERY PRACTICAL AND VERY FUNCTIONAL. THE PLANTING MATERIAL WILL BE ATTRACTIVE BUT ALSO RUGGED. SOME DEVICES WILL BE USED TO CONTROL THE WHEEL TOY PROBLEM SUCH AS HAVING SLIGHTLY RAISED BEDS FOR MANY OF THE ANNUALS.

INSTALLATION OF THESE GARDENS WAS BEGUN LATE IN THE SPRING OF 1957. IT IS HOPED THAT AT LEAST ONE GARDEN MAY BE OPENED FOR THE PUBLIC DURING THE WINTER OF 1957. IT IS ANTICIPATED THAT EACH YEAR ONE OF THE GARDENS WILL BE REPLANTED WITH NEW INTRODUCTIONS. THIS WILL SERVE TO SUSTAIN INTEREST IN THIS PROJECT AS WELL AS TO ALLOW A CURRENT DISPLAY OF THE NEW PLANTS RECOMMENDED FOR GROWING IN SOUTHERN CALIFORNIA.



Circular, colored, concrete stepping stones
lead through the Entertainer's Garden

ARBORETUM LIBRARY

THE MOVE TO OUR NEW ADMINISTRATION BUILDING BROUGHT GREAT SATISFACTION TO OUR LIBRARY STAFF. FIRST, BOOK SHELVING SPACE WAS INCREASED. SECOND, A SMALL READING CORNER WAS GAINED, A LUXURY LACKING IN OUR FORMER BUILDING. THIRD, STORAGE SPACE IN THE BASEMENT HAS BROUGHT ALL OUR BOOKS AND PERIODICALS UNDER ONE ROOF FOR THE FIRST TIME IN NEARLY EIGHT YEARS.

THE NEW FACILITIES MAY HAVE BEEN RESPONSIBLE FOR THE 150 PERCENT INCREASE IN THE USE OF THE LIBRARY'S RESOURCES BY TEACHERS, STUDENTS, HORTICULTURISTS AND OTHER NON-STAFF MEMBERS. THE CLASSIFICATION SCHEME FOR OUR REFERENCE MATERIALS WAS USED WITH EQUAL EASE BY THE AMATEUR AS WELL AS THE PROFESSIONAL PLANTSMAN. ADAPTED FROM THE MASSACHUSETTS HORTICULTURAL SOCIETY LIBRARY, THIS SYSTEM IS PARTICULARLY DESIGNED FOR LIBRARIES NOT ONLY DEVOTED TO HORTICULTURAL AND BOTANICAL FIELDS, BUT ALSO SERVES FOR THE RELATED BRANCHES OF SCIENCE AND HISTORY.

AMONG THE ACQUISITIONS OF THE LIBRARY WAS A RECENT REPRINT OF THE GRAY HERBARIUM CARD INDEX, ISSUES 1-218. THIS INDEX OF PLANTS OF THE WESTERN HEMISPHERE IS A MOST USEFUL TOOL FOR THE PLANT TAXONOMIST.



THE TOTAL OF NEWLY ACQUIRED LIBRARY MATERIALS DURING THE FISCAL YEAR WAS AS FOLLOWS:

BOOKS	321
PAMPHLETS	151
NON-CURRENT SERIALS	16 volumes
LOAN NON-CURRENT SERIALS	364 volumes
CURRENT SERIAL PUBLICATIONS	218
BOUND: NON-CURRENT SERIALS	166 volumes

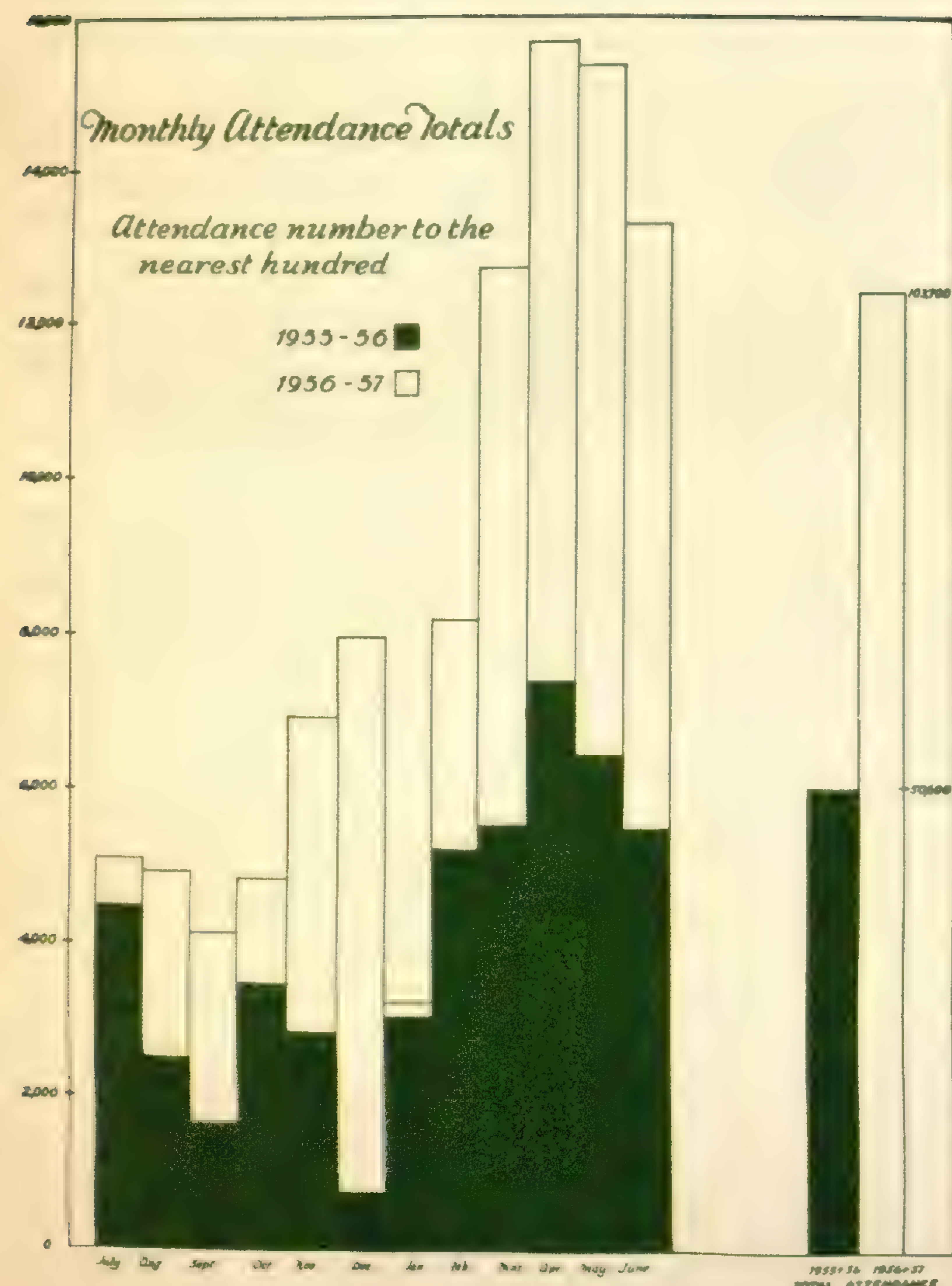
ARBORETUM VISITORS

THE ARBORETUM ENJOYED AN EXTREMELY SATISFYING VISITATION RECORD THIS YEAR. TWICE AS MANY VISITORS PASSED THROUGH OUR TURNSTILES AS THE YEAR BEFORE.

FOR THE FIRST TIME, THE GROUNDS WERE OPEN SEVEN DAYS A WEEK AND VISITORS COULD WALK THROUGHOUT THE PLANTINGS AT THEIR LEISURE. THESE TWO OPERATIONAL PROCEDURES MAY BE PRIMARILY RESPONSIBLE FOR THE INCREASED ATTENDANCE.



The Information Center and Gatehouse. The staff here answers questions by the public on gardening and horticulture. Guided tours of the Arboretum initiate here also.



OUR VISITORS CAME FROM NEAR AND FAR: RIVERSIDE GARDEN CLUB, AMERICAN ASSOCIATION OF NURSERIES AND BOTANIC ARCHITECTS. EACH OF THE 48 STATES WERE REPRESENTED. THE MINISTRY OF FOREIGN AFFAIRS, CAMBODIA; DIRECTOR OF FINANCE, CAIRO, EGYPT; HELSINKI, FINLAND; SOUTH AFRICA; AUSTRALIA, AND TOKYO.

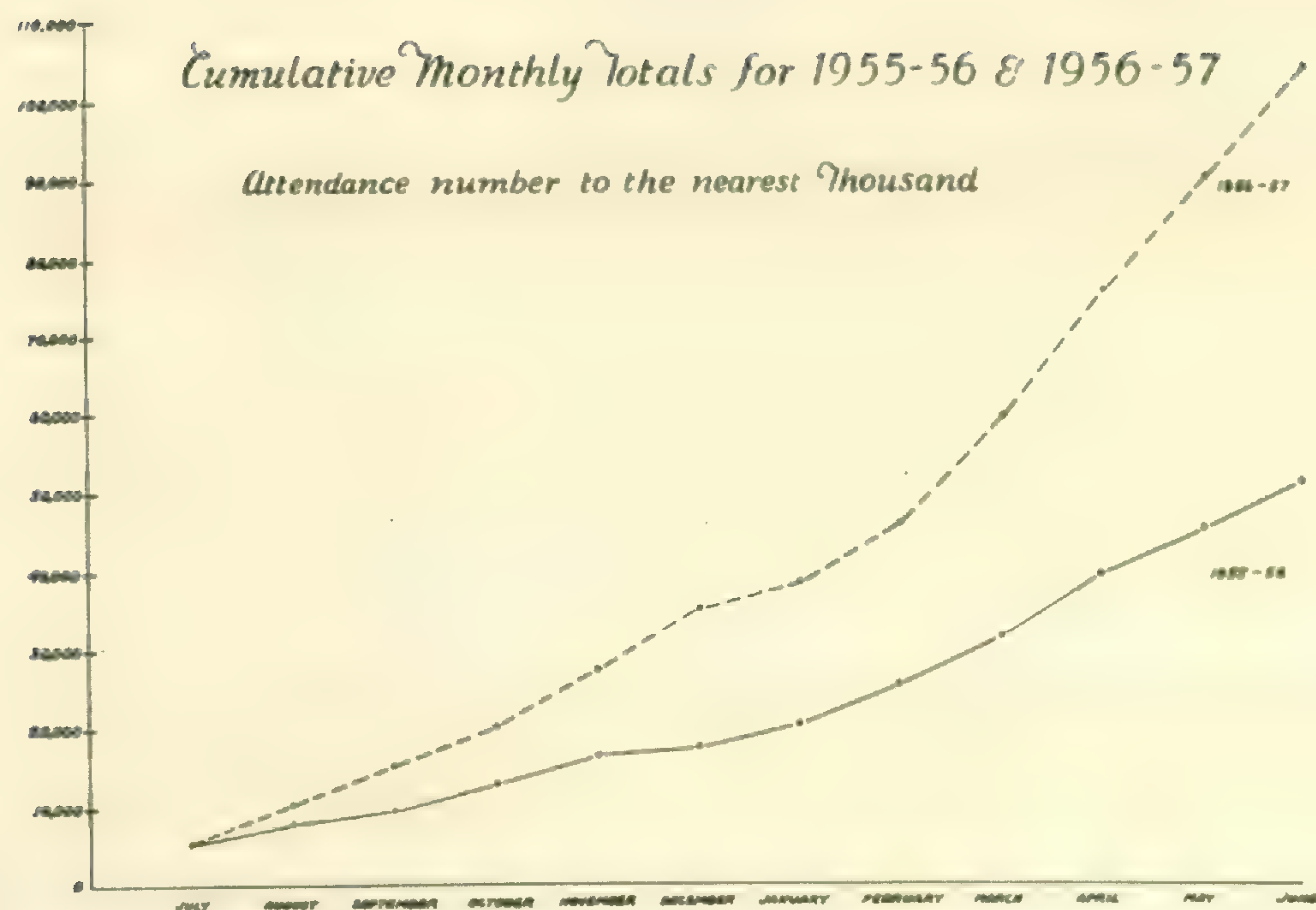
THE "GUEST REGISTER" HAS BEEN GEOGRAPHICALLY FASCINATING.

Twice as many visitors toured the grounds in 1956-57 as in 1955-56.

NOTABLY, SPRINGTIME HAS ALWAYS BEEN THE MOST POPULAR SIGHT-SEEING SEASON. THE LOW ATTENDANCE POINTS REFLECT THE RAIN SEASON. AS PLANTINGS DEVELOP WHICH WILL INCREASE THE FALL COLOR, AUTUMN VISITATION WILL GROW IN NUMBERS.

THESE GRAPHS DO NOT DISTINGUISH BETWEEN WEEKDAY AND WEEKEND ATTENDANCE. FORMERLY, THE LATTER HAS ALWAYS BEEN THE GREATER; THIS YEAR, WEEKDAY TOTALS ACCOUNTED FOR NEARLY 50 PERCENT OF EACH WEEK'S TOTAL.

CHILDREN ATTENDANCE FROM SCHOOLS, CHURCHES AND YOUTH ORGANIZATIONS (TOURS MADE BY RESERVATION) TOTALLED 12,459. A CONSERVATIVE ESTIMATE OF NUMBERS OF ALL CHILDREN INCLUDED IN THE YEAR'S TOTAL WOULD PROBABLY BE 30 PERCENT.



This monthly cumulative graph shows that the greatest increase in attendance was in the latter six months of the fiscal year.

EDUCATION

THE TERM "EDUCATION" HAS A DIFFERENT MEANING FOR EACH PERSON. REGARDLESS OF THE INDIVIDUAL DIFFERENCES, THERE IS A GENERAL AGREEMENT THAT TO HAVE AN EDUCATIONAL EXPERIENCE, ONE MUST FEEL, SEE OR LEARN SOMETHING ABOUT WHICH HE HAD LITTLE PREVIOUS KNOWLEDGE.

THE SATISFACTION OF THIS DEFINITION TAKES TWO FORMS AT THE ARBORETUM. ONE IS INFORMAL, THE OTHER A MORE FORMAL EDUCATION PROGRAM, COMPOSED OF REGULAR CLASS MEETINGS.

THE INFORMAL PROGRAM IS OUR GUIDED JEEP TRAIN TOURS, AN EDUCATIONAL EXPERIENCE PARTICIPATED IN BY THE GREATER PORTION OF THE 103,000 VISITORS TO THE ARBORETUM THIS YEAR.

THE FORMAL PROGRAM IS A SERIES OF CLASSES IN HORTICULTURE, BOTANY AND PLANT AESTHETICS.

BOTH FORMS OF OUR EDUCATIONAL ACTIVITIES, INCREASING IN SERVICE OVER THE PREVIOUS YEAR, LOOK TO THE 1957-58 SEASON FOR PLAYING EVEN A GREATER ROLE IN THE OVERALL LIFE OF THE ARBORETUM.



Information Aid, Denis Kucera, explains the phenomenon of a natural graft in this Englemann oak to a group of school children.



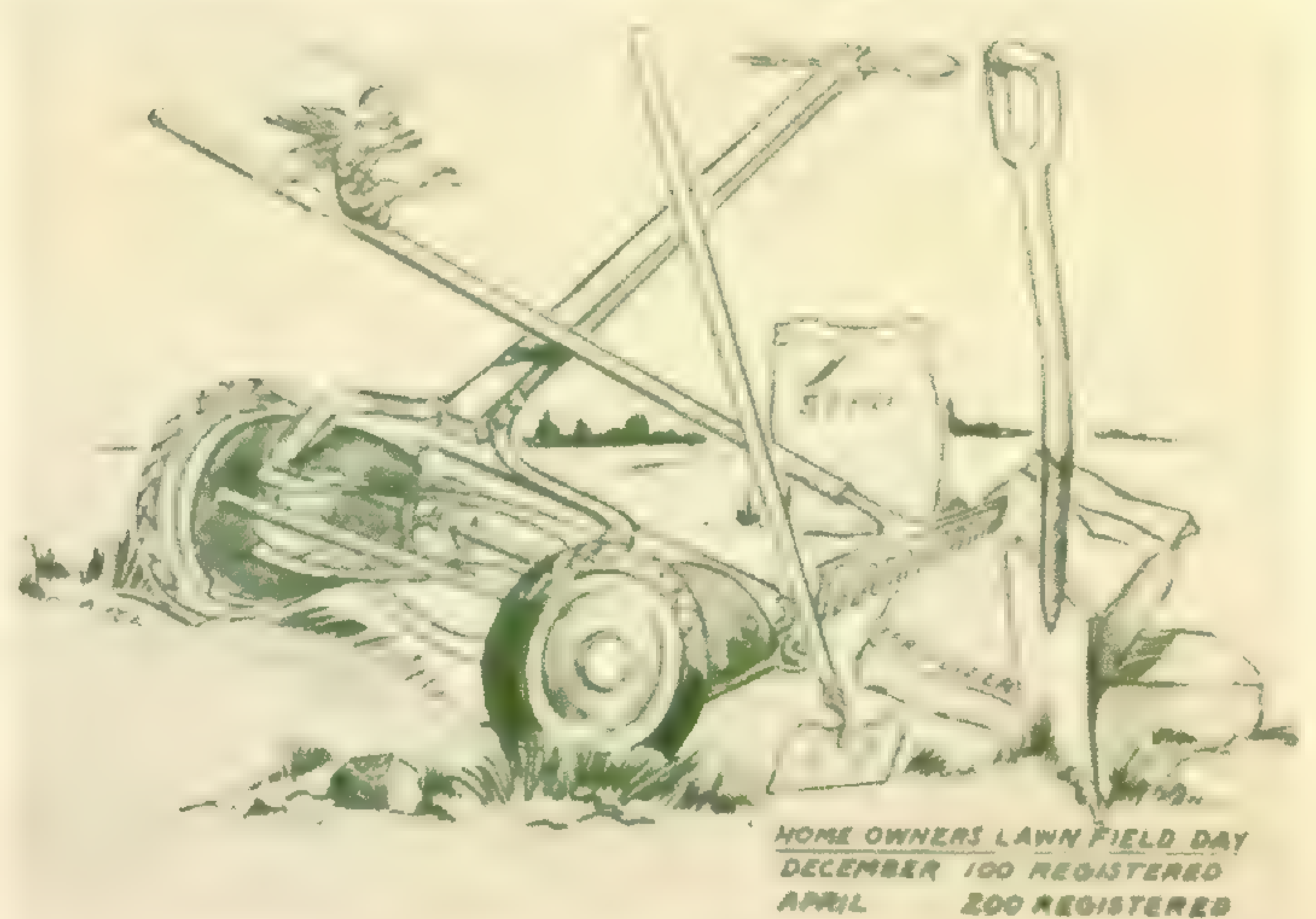
TREE IDENTIFICATION CLASS
82 REGISTERED
670 PUPIL HOURS



Mrs. Jane Morse conducted a class in "Art in Nature" for children between the ages of 7 and 14. Here she helps two pupils master the techniques of finger painting.



LEADERS COURSE
27 REGISTERED
245 PUPIL HOURS





Dr. Lawson, a member of the Southern California Unit of the Herb Society of America, explaining the secrets of cooking with herbs. Delicious samples of this art can be seen on the table.



Members of the evening class in Home Landscaping discuss their problems in design and the use of plant materials. Mr. Eric Johnson, Instructor, is at the blackboard.



BOTANICAL SKETCHING
 37 REGISTERED
 316 PUPIL HOURS



TAXONOMY CLASS
 10 REGISTERED
 280 PUPIL HOURS

GRAND TOTAL OF REGISTERED STUDENTS	748
GRAND TOTAL OF PUPIL HOURS OF INSTRUCTION	3051

CLASSES FOR FALL OF 1957

JUNIOR BIRD STUDY

PRACTICAL ORCHID CULTURE

TREE IDENTIFICATION

BEGINNING PLANT IDENTIFICATION

HERB LECTURES

BOTANICAL SKETCHING

HOME LANDSCAPING

ADVANCED PLANT IDENTIFICATION

RESEARCH

RESEARCH, USING A SPECIFIC METHOD OF PROCEDURE, ATTEMPTS TO SOLVE PROBLEMS OR EXPLAIN OBSERVATIONS ENCOUNTERED IN A PARTICULAR FIELD OF STUDY. PROBLEMS IN HORTICULTURE ARE MANY. DURING THE PAST YEAR, THE ARBORETUM MADE PROGRESS ALONG CERTAIN LINES OF ESTABLISHED PROJECTS AND INITIATED NEW AREAS OF INVESTIGATION.

THE FIRE RESISTANT PLANT PROJECT

THE FOLLOWING IS AN ABSTRACT OF A PAPER PRESENTED AT THE ANNUAL MEETING OF THE AMERICAN INSTITUTE OF BIOLOGICAL SCIENCES, AUGUST 26-30, 1956, HELD AT THE UNIVERSITY OF CONNECTICUT, STORRS, CONN.

"A Germination Inhibitor in Cistus salvifolius, an introduced plant for erosion control in So. California". Gustaf Juhren, L. B. Martin and Marcella Juhren.

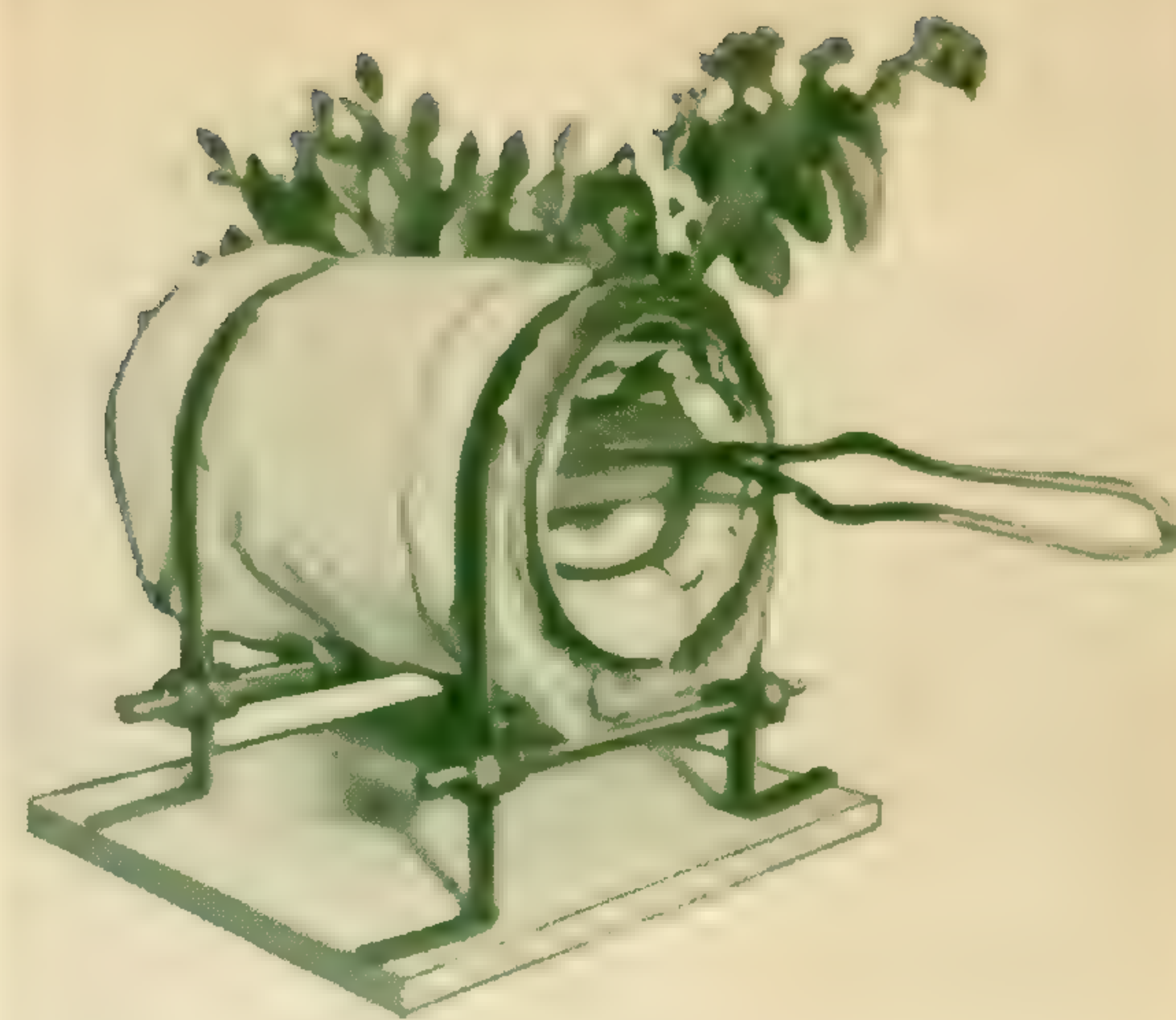
Periodic fires in the chaparral vegetation of southern California mountains present constant reforestation and erosion control problems. Growing conditions on these exposed mountain slopes are severe. Introduced plant species are often used to supplement native vegetation. Species of Cistus (Rock Rose), a Mediterranean native, is able to grow under these conditions and in addition shows a certain degree of resistance to burning. Cistus seed germinated sporadically over long periods when grown in the greenhouse and when directly seeded in the field. Charcoal mixed with seedbed soil appeared to hasten and produce greater germination. Seeds of Cistus salvifolius mixed with activated charcoal and germinated under controlled conditions (light, moisture, temperature) resulted in: earlier germination than in the control without charcoal, the greater number of seedlings produced in 10 days was significant at the 5% level compared with the control. A second set of seeds germinated under identical conditions but in which the seedlings were removed each day, produced similar results. These experiments suggest the presence of some type of germination inhibitor in seeds of Cistus salvifolius. The total germination for the two sets of treatments was not significantly different at the end of the eight weeks experimental period.



Inspection of Cistus seedling plots established on a recent burn in the San Bernardino Mts. This is a cooperative venture between the United States Forest Service and the Arboretum.

THE ELECTRIC FURNACE

THE FURNACE IN THE ILLUSTRATION (RIGHT) WAS CONSTRUCTED TO TEST LEAF SAMPLES FOR FIRE RESISTANT PROPERTIES. THE OPERATING TEMPERATURE AT THE CENTER OF THE FURNACE IS APPROXIMATELY 950 DEG. F. FOUR ELECTRICAL RESISTANCE WIRES, FASTENED ALONG THE INNER WALLS OF THE FURNACE, SERVE AS HEATING ELEMENTS.



A SINGLE LEAF OF A PLANT SPECIES IS INSERTED INTO THE MIDDLE OF THE OVEN, USING A PAIR OF LONG HANDLED TONGS. THE LENGTH OF TIME REQUIRED FOR LEAF TO BURST INTO FLAMES IS RECORDED. THESE DATA ARE USED AS A SCALE OF FIRE RESISTANCE.

THE FIRST EXPERIMENT, USING BOTH FRESH AND DRIED LEAVES, SHOWED THAT THE DIFFERENCE IN TIME REQUIRED FOR THE VARIOUS LEAF SPECIES TO BURST INTO FLAME WAS STATISTICALLY SIGNIFICANT.

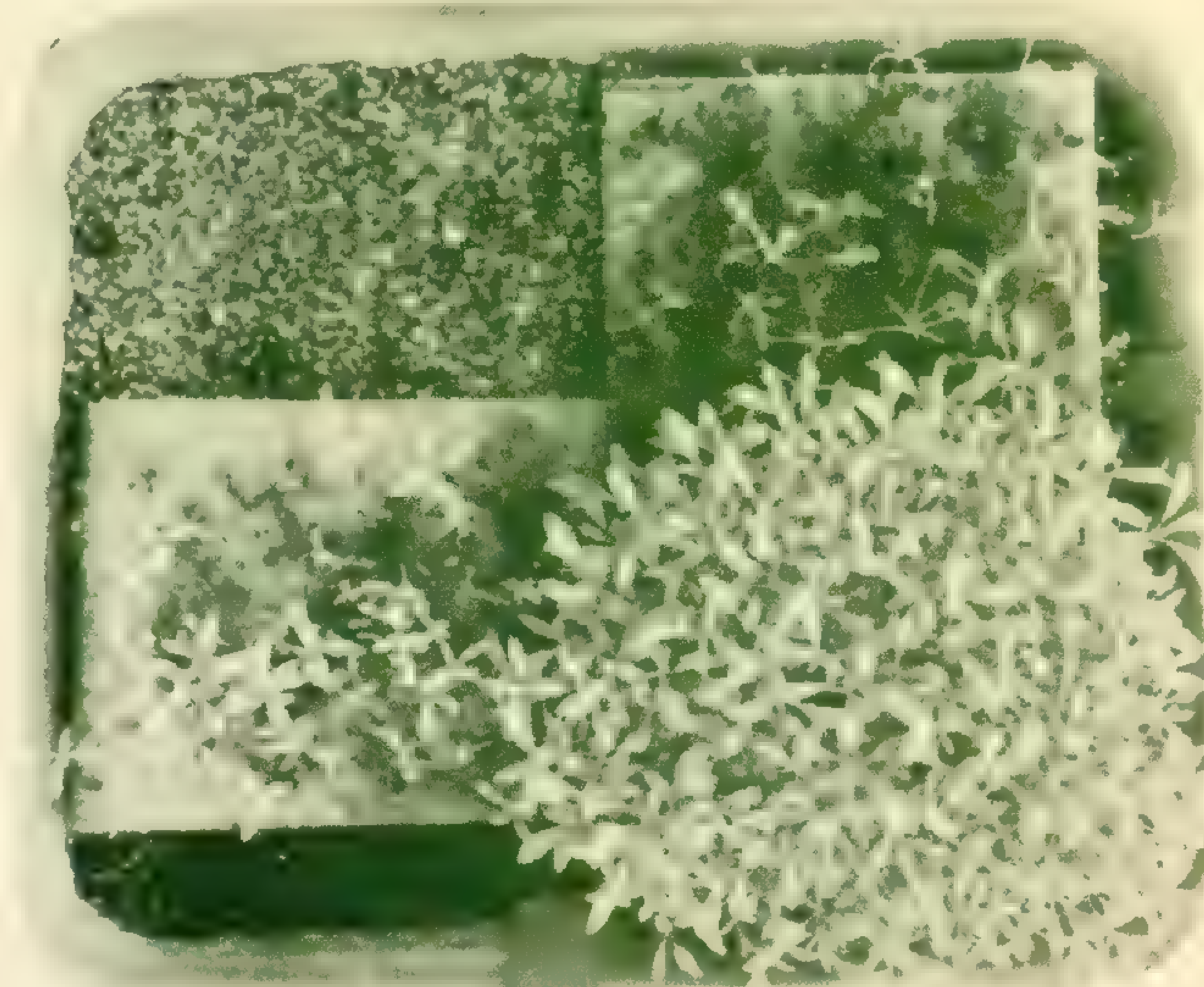
THE ARBORETUM HAS CONTINUED TO COOPERATE WITH THE U.S. FOREST SERVICE IN FIELD PLOT TESTS OF CISTUS THROUGHOUT THE ADJACENT MOUNTAIN AREA. FURTHER, MANY OTHER LOCAL, STATE AND FEDERAL AGENCIES HAVE BECOME INTERESTED IN FIRE CONTROL BY PLANT MATERIAL. COOPERATIVE WORK THROUGH CISTUS SEED DISTRIBUTION AND CONFERENCES HAVE BEEN ESTABLISHED WITH THESE AGENCIES. AT PRESENT, THE ARBORETUM IS SERVING AS A COORDINATOR IN THIS INITIAL STUDY OF FIRE RESISTANT PLANT RESEARCH.

THE FLOWER CARPET PROJECT

WITH A RESEARCH GRANT OF \$9,000 TO THE CALIFORNIA ARBORETUM FOUNDATION, INC., FROM THE LONGWOOD FOUNDATION, STUDIES WERE INITIATED ON THE "FLOWER CARPET PROJECT". THE OBJECT OF THESE STUDIES IS TO DEVELOP THE MEANS OF GROWING DWARF ANNUAL FLOWERING PLANTS, SUCH AS THOSE FOUND IN THE MOJAVE AND COLORADO DESERTS, ON A CARPETING MATERIAL WHICH COULD THEN BE USED IN THE PREPARATION OF FLOATS, AS FOR EXAMPLE IN THE ROSE PARADE, OR IN OTHER PLACES WHERE FLORAL DISPLAYS ARE DESIRED. THIS PROJECT HAS BEEN IN PROGRESS SINCE JANUARY 1957.

DETAILED STUDIES ARE NOW IN PROGRESS REGARDING THE BEST METHODS OF GERMINATING THE SEED AS WELL AS THE ENVIRONMENTAL CONDITIONS FOR GROWING THE VARIOUS KINDS OF SEEDS. THE STUDIES ON ENVIRONMENTAL CONDITIONS ARE BEING MADE AT THE CALIFORNIA INSTITUTE OF TECHNOLOGY, EARHART PLANT LABORATORY.

Flower Carpet. Lower half of pan, seedling Alyssum, (left) removed from moisture chamber one week after plants at right. Upper, California poppy seedlings. Seeds germinated on foam plastic or urethane plastic set on vermiculite and fed 3 times a week with nutrients.

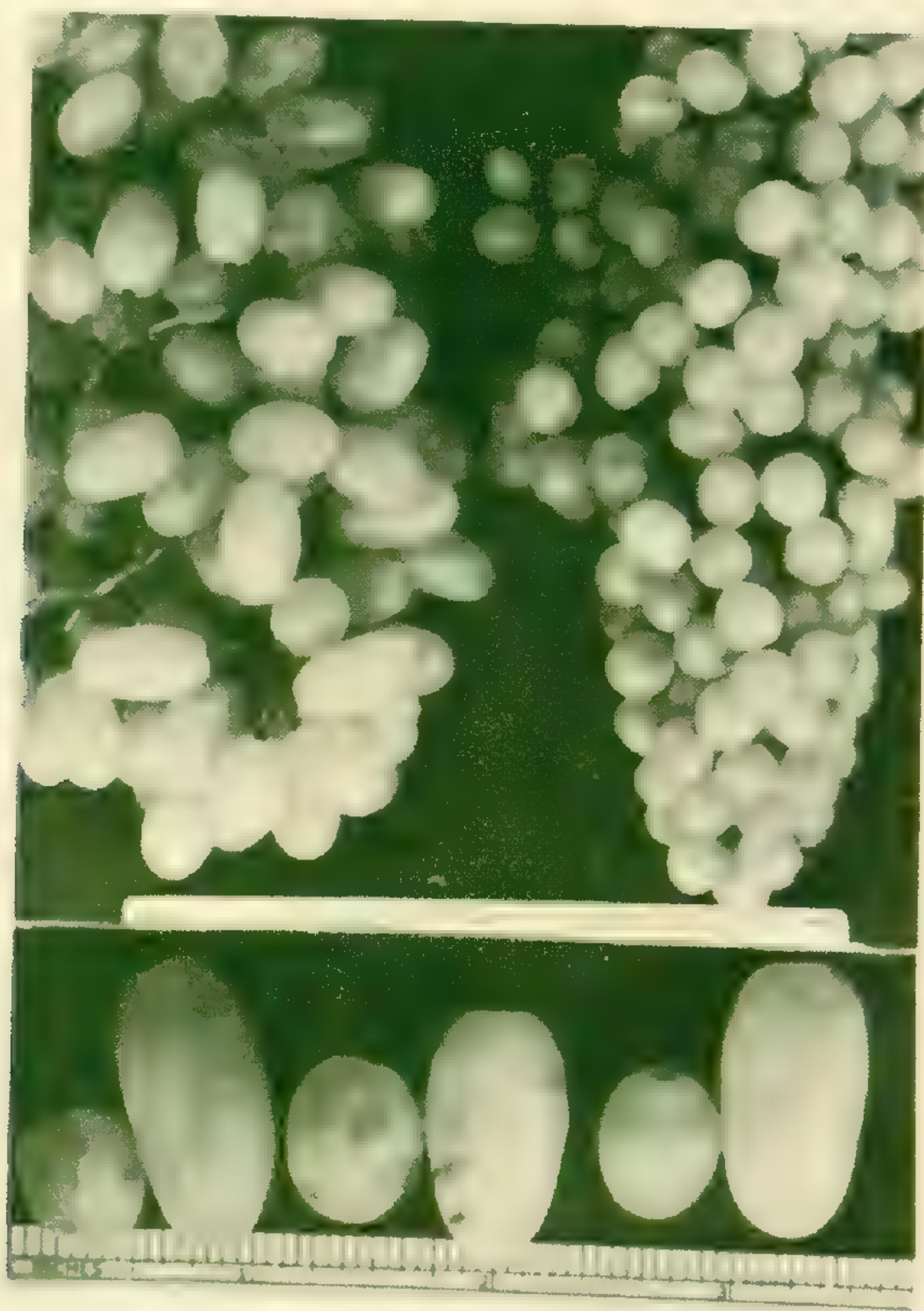


THE PLANT HORMONE STUDIES

GIBBERELLIC ACID, A RELATIVELY NEW CHEMICAL IN THE FIELD OF PLANT HORMONES, IS NOW READILY AVAILABLE FOR RESEARCH AND HORTICULTURAL USES. IN GENERAL, IT HAS THE EFFECT OF CAUSING ELONGATION OF PLANT CELLS. THIS RESPONSE MAY HAVE NUMEROUS HORTICULTURAL AND AGRICULTURAL APPLICATIONS WHEN IT IS DESIRED TO OBTAIN TALLER PLANTS, FASTER.

IN VIEW OF THE WIDE POPULAR INTEREST IN GIBBERELLIC ACID, A SERIES OF EXPERIMENTS USING THIS COMPOUND WERE INITIATED AT THE ARBORETUM. A BRIEF PROGRESS REPORT OF THIS WORK FOLLOWS:

- A. TO THE STEMS OF SEEDLINGS OF ERANTHEMUM ATROPURPUREUM, LANOLIN PASTE CONTAINING 25 PPM (PARTS PER MILLION) OF GIBBERELLIC ACID WAS APPLIED AS A RING AT THE UPPER MOST NODE. MEASUREMENTS SHOWED BOTH THE INTER-NODE ABOVE AND BELOW THE TREATED NODE GREW SIGNIFICANTLY LONGER THAN THOSE ON UNTREATED STEMS.
- B. TO SEEDLING STEMS OF CARICA PAPAYA VAR. SOLO, A LANOLIN RING WAS APPLIED CONTAINING GIBBERELLIC ACID. NO ELONGATION OF STEM WAS OBSERVED, HOWEVER, A GROWTH IN STEM THICKNESS RESULTED AT THE SITE OF APPLICATION. FURTHER STUDIES SHOULD REVEAL WHETHER CELL SIZE OR CELL NUMBER WAS INCREASED BY THE TREATMENT.
- C. AT THE SUGGESTION OF MR. GWYNN WILSON OF COACHELLA VALLEY, TESTS WERE INITIATED TO DETERMINE THE EFFECT OF SPRAYING APPLICATIONS OF GIBBERELLIC ACID ON YOUNG GRAPE CLUSTERS. THE OBJECT WAS TO DETERMINE IF FRUIT STEMS COULD BE INDUCED TO ELONGATE SUFFICIENTLY TO AVOID THE NECESSITY OF CLUSTER THINNING. HARVEST DATA SHOWED THAT A SINGLE APPLICATION OF A WATER SPRAY OF EITHER 10 PPM OR 100 PPM GIBBERELLIC ACID RESULTED IN LARGER CLUSTERS OF FRUIT. IN ADDITION, TO INCREASING FRUIT SIZE, THE SPRAYS INDUCED ELONGATED FRUIT AND FRUIT WITH A HIGHER SUGAR AND LOWER ACID CONTENT THAN FROM NON-SPRAYED CLUSTERS.



Thompson Seedless grapes harvested June 21, 1957, from flower clusters sprayed with 100 ppm Gibberellic acid on April 9, 1957. Above, left, sprayed; right, non-sprayed. Below, close-up view of individual fruits, alternating non-sprayed and sprayed from left to right.

SPECIAL EVENTS



La Posada on the veranda of the Hugo Reid Adobe, presented by children of the Little Theater. This group is sponsored by the Arboretum Historical Committee.



Neighbors of the Arboretum are Cordially Invited
to a

"CHRISTMAS POSADA"

Sunday, December 16, 1956 4:30 - 5:30 P.M.
301 N. Baldwin Avenue Arcadia, Calif.

The Posada and Fiesta of the Pifata is being presented in the setting of the old Hugo Reid Adobe by Children's Theatre. Transportation will be provided from the Gatehouse to the Adobe.

Following the Posada the new Arboretum Administration Building and Gatehouse will be open for your inspection.

Hasta Luego y Feliz Navidad!

The Arboretum Staff.

THE INCREASED ATTENDANCE WAS A REFLECTION OF PUBLIC INFORMATION ACTIVITIES THIS YEAR.

WEEKLY NEWS RELEASES CARRIED STORIES OF NEW PLANT INTRODUCTIONS TO BIRD WALKS AND CONSTRUCTION ADVANCES.

NEARLY 100 PROGRAMS WERE PRESENTED TO GARDEN CLUBS, CHURCHES AND CIVIC ORGANIZATIONS, BY TRAINED ARBORETUM PERSONNEL.

THE ARBORETUM WAS INVITED TO DISPLAY EDUCATIONAL AND RESEARCH MATERIALS IN SEVEN FLOWER SHOWS, IN THE SOUTHLAND AREA.

MANY TRADE MAGAZINES CARRIED INDIVIDUAL STORIES OF THE ARBORETUM, COVERING A VARIETY OF SUBJECTS.

SPECIAL EVENTS HELD AT THE ARBORETUM, SUCH AS LA POSADA, INTERESTED FIRST TIME VISITORS WHO LATER RETURNED FOR A COMPLETE TOUR OF THE GROUNDS.



The Arboretum and Descanso Gardens cooperated in a display of orchids and tropical plants for the opening and dedication of Horticultural Hall, located in the Museum of Science and Industry, Exposition Park, Los Angeles.



Mr. Joe Kelly, representing the Boy Scouts of the San Gabriel Valley Council, accepts an Italian Stone pine from Dr. Stewart. Six such trees were given to the Boy Scouts at our Arbor Day program.



Various lawn equipment on display during the Home Owners Lawn Field Day.

Arboretum staff members help release gift of wild fowl from the Sacramento National Wildlife Refuge.



The Arboretum's display at Descanso Gardens annual Camilla Show.

CALIFORNIA ARBORETUM FOUNDATION, INC.

ACTING NOW AS A SPONSORING ORGANIZATION, THE CALIFORNIA ARBORETUM FOUNDATION, INC. SERVES THE ARBORETUM IN MANY WAYS. THE FOUNDATION DESERVES MUCH CREDIT FOR ITS WORK OF OBTAINING GIFTS OF PLANTS AND OTHER MATERIALS FOR THE ARBORETUM. THE GIFTS, DIVERSE IN KIND, ARE ALL OF CONSIDERABLE VALUE AND REPRESENT THE INDIVIDUAL'S BELIEF IN THE FUTURE OF THE ARBORETUM'S WORK WITHIN THE COUNTY OF LOS ANGELES.

RECENT GIFTS:

1. THE ROBERT C. CASAMAJOR ORCHID PROPAGATING HOUSE
2. THE J. F. DOUGLAS MEMORIAL ORCHID HOUSE
3. THE BOYLE ORCHID LITHOGRAPH COLLECTION (Through donated funds)
4. THE COOKE REDWOOD GREENHOUSES
5. PHOENIX RECLINATA PALMS
6. A COLLECTION OF 6,250 CYMBIDIUM ORCHID PLANTS FROM THE MOSHER FOUNDATION
7. THE ARTHUR FREED CYPRIPEIDIUM ORCHID COLLECTION
8. THE MCFIE CYPRIPEIDIUM ORCHID COLLECTION
9. A CRYSTAL CHANDELIER FOR THE "QUEEN ANNE COTTAGE" (Through donated funds)
10. A MELODEON FROM MR. WINSTON S. CRUSE
11. FIVE THOUSAND ARBORETUM BIRD CHECK LISTS FROM MR. W. DAN QUATTLEBAUM



The Casamajor and Douglas Orchid Houses. These houses make it possible for visitors to see the many orchid species and learn something of their propagation.



The Foundation sponsored Jeep Train makes touring the Arboretum more pleasant.

Coelogyne pandurata. An example of the lithograph orchid prints from the Boyle collection.



"Lasca Leaves", the official publication of the Foundation, is published quarterly in conjunction with the Southern California Horticultural Society. It carries articles on horticulture, work of the Arboretum, California history, and research data in the fields of horticulture and botany. It has a circulation of about 1000.





This is not a picture of just any group of ducks, of any lagoon, of any peacock. Your heart strings will be touched with sadness when you learn the poultry truth of this scene. Almost from the shell, this peacock was raised with a duck. Together, wing and wing, they wandered through life, not separating even when given to the Arboretum. Their close companionship set them apart from the many other peafowl and ducks. However, fate was not to be denied. One day, the duck found our lagoon too irresistible and paddled away from the shore for a swim. The scene, the play, the pathos are united. Dubbed "psychopathic" peacock, but more appropriate would be "schizophrenic", he'll probably never be sure of his friend again, but of greater tragedy, his own position in the feathered world.

PICTURE CREDIT

Photos by J. Shulman and loaned by the Concrete Masonry Institute

- # 3 Entrance to the Administration Building
- # 4 Entrance Pavilion
- # 5 Lecture Room
- # 6 Administration Building Patio
- # 13 Front Yard of the Administration Building
- # 24 Information Center

- # 8 Hugo Reid Excavation -- Edith Wallace
- # 9 Archaeology Students -- Arcadia Tribune
- # 18 Antelope Valley Test Station -- Marie T. Walsh
- # 27 Information Aid -- Independent Star-News
- # 29 Mrs. Jane Morse -- Independent Star-News
- # 48 Arbor Day -- Arcadia Tribune

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